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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY  
MITCHELL BROS. COMPANY,  
(INCORPORATED.)

VOL. V.

CHICAGO, ILLINOIS, APRIL 15, 1887.

No. 10.

SUBSCRIPTION PRICE,  
ONE DOLLAR PER ANNUM.

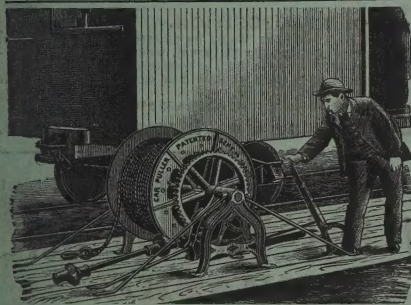
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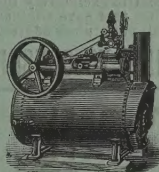
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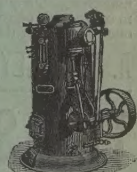
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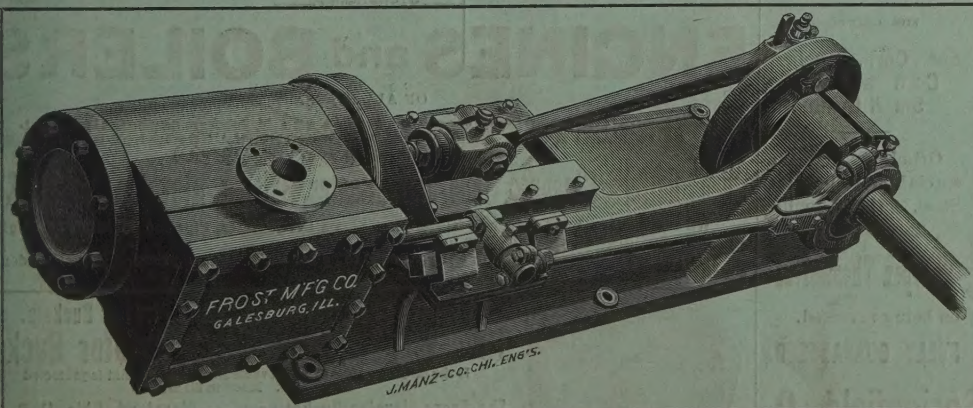
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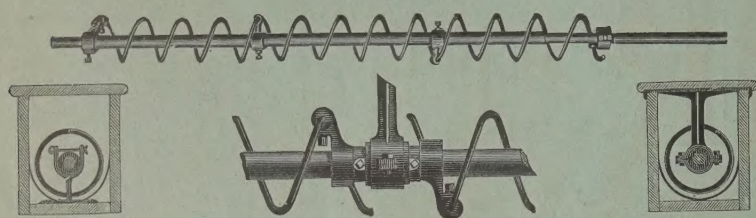
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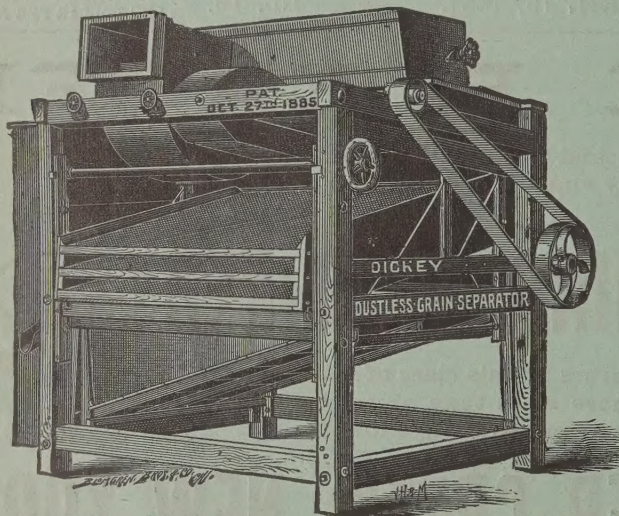
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**WE CLAIM FOR IT SUPERIORITY**

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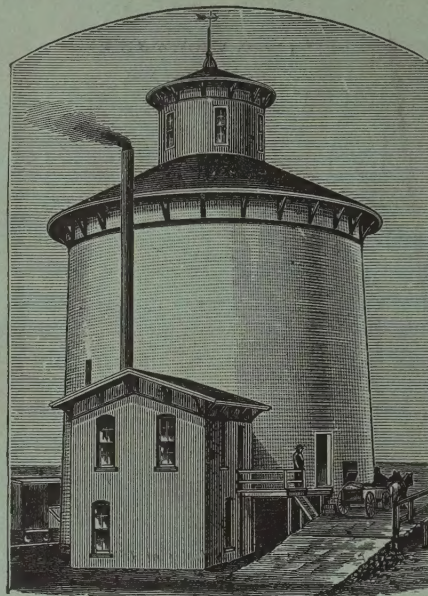
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For all Kinds of STEAM ENGINES, PUMPS, Etc.

Advantages of our Lubricator over all others.

FIRST.—By using a Coll Condenser are never troubled for Condensation, even in the hottest weather.

SECOND.—The oil being fed down through a steam-filled glass gauge cannot congeal, and feeds readily in the coldest weather, Beeswax, Tallow, or any known lubricant, from one drop per minute to a stream.

THIRD.—Owing to live steam current that is constantly passing through Lubricator, forcing the oil down to the parts to be lubricated, we are insured a positive feed at all times.

FOURTH.—Being the sole owners of Letters Patent No. 154,713 (bearing date Sept. 1, 1874), which is the first patent issued showing oil dropping down through a steam-filled glass gauge, we are able to indemnify our patrons from infringement litigation.

**OUR PROPOSITION.**

If you are in need of a Lubricator, we would be pleased to send you one of ours on 30 days' trial (express charge prepaid by us), when if not found perfectly satisfactory, and to your advantage to keep same, it can be returned at our expense. In ordering always state whether you desire single or double steam connection cup, as we manufacture both styles.

Write for descriptive circular and prices, it will pay you.

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## A WESTERN FEEDING STATION AND ELEVATOR.

Our readers are aware of the vast scale on which the cattle industry of the West is conducted. The illustration on this page and the paragraphs following will give some idea of the very complete arrangements with which some of the cattle companies have provided themselves.

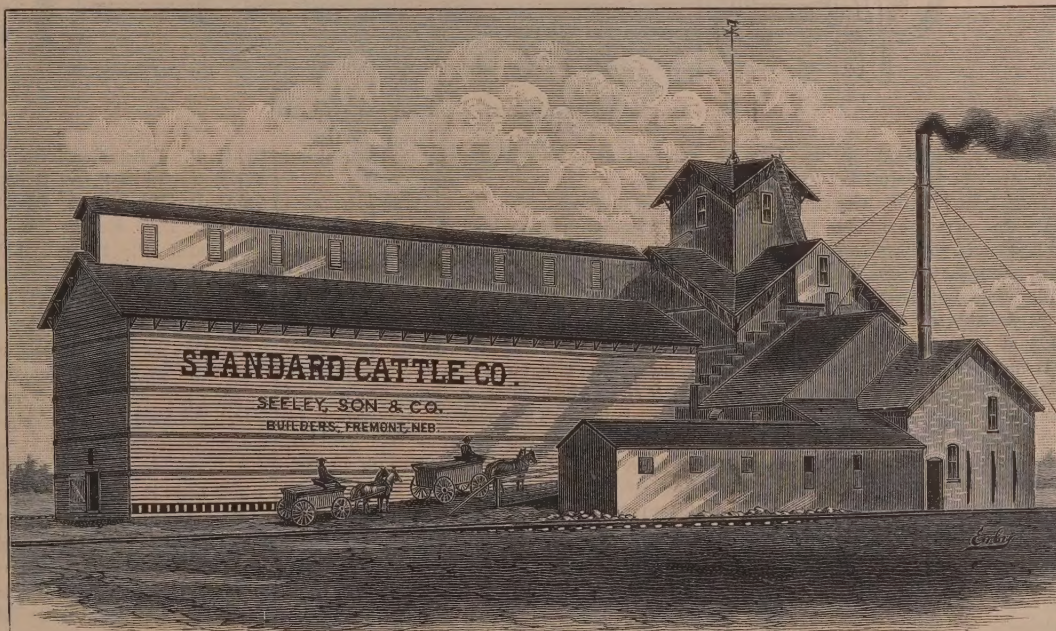
The Standard Cattle Co., of Cheyenne Wyo. Ter., have a feeding station at Ames, seven miles west of Fremont, Neb., on the Union Pacific Railway. They have 5,000 acres of land, costing about \$25 per acre. Their stable has stalls for 3,008 steers and covers nearly five acres, and cost about \$50,000. It has all the modern appliances for doing the work expeditiously and cheaply. The hay and grain are distributed throughout the building (in front of each steer) by cars which are run on tracks. The grain is all ground fine and fed from cars provided with an automatic feed so that each animal is fed a given quantity, and the entire number, 3,008, may be fed in nine minutes.

They have a thorough system of water-works—two pumps with capacity of 35,000 gallons per hour. The stable is cleaned by flushing with water, which is afterward discharged into the Platte River.

To make such a large feeding establishment practicable they have one of Seeley, Son & Co.'s Improved Elevators of 30,000 bushels capacity. To the elevator is attached a corn-crib of 35,000 bushels capacity, ear corn. The crib may be filled with shelled corn, giving then a storage capacity of 100,000 bushels. The corn is ground by the roller process and requires the combined capacity of two sets of double rolls, 9"x24". A 60-horse power Reynolds-Corliss Engine supplies the power, and a pair of 40-horse power boilers generates the steam for engine and pumps.

A large part of the grain is brought in cars, which are drawn to and from the building by machinery, and are unloaded by a "Coker Patent Power Grain Shovel." The ear corn is well provided for with a No. 2 Barnard &

Leas Sheller and Cleaner, which shells it at the rate of 700 bushels per hour. The whole plant was put in operation about the middle of August last. On the morning of Dec. 4 the elevator, crib and engine house were entirely consumed by fire, entailing a loss of \$20,000; insurance about \$15,000. Seeley, Son & Co., of Fremont, Neb., were telegraphed for, and contract was made to rebuild in forty days, with a penalty of \$100 per day for every day it should remain unfinished thereafter.



THE STANDARD CATTLE COMPANY'S FEEDING STATION, CRIB AND ELEVATOR AT AMES, NEB.

The elevator was running on time, and considering the extreme cold weather (5 to 30 degrees below zero) and that one-third of the time was consumed in getting material on the ground, Messrs. Seeley, Son & Co. made remarkably quick time, although they have the name of doing their work on or before time,

The winter-wheat destroyer is away behind this year.

The increase in grain culture in the South from 1868 to 1885-6 is a striking evidence of agricultural advancement:

	Bushels—Corn.	Wheat.	Oats.
Total 1885-6.....	470,776,000	53,526,000	78,674,000
" 1868.....	354,124,000	31,822,000	82,583,000
Increase.....	116,652,000	21,704,000	45,092,000

The aggregate gain in cereals was 184,448,000 bushels, a large figure, and strikingly suggestive of the Southern agricultural future under progressive farming.

## WAYS THAT ARE DARK.

G. Amsinck & Co. complained to the New York Produce Exchange managers that while the steamship Letimbro was loading at Bartlett's stores, in Brooklyn, with a cargo of No. 2 red wheat belonging to the firm, a quantity of screenings or refuse was run out into the ship from a conduit from the warehouse and mixed with the red wheat. The managers investigated, and voted to censure E. B.

Bartlett & Co. They summoned E. B. Bartlett before them, and President James McGee, in administering the censure, said:

"It will hardly be necessary for me to call your attention to the delicate distinction between culpable negligence and a criminal overt act. The word 'equity' which is inscribed on our cornerstone, involves more than negative non-interference with the rights of others, and necessitates actual co-operation for their security. Especially in a case like this, where the Exchange issues a license to protect both buyer and seller, a sacred trust is devolved upon the warehouseman, and the slightest negligence may operate to the detriment of one party or the other. The

facts that screenings were apparently speculated in, that they were run through the same conveyors as good wheat; that although running for two or three days the amount of screenings had apparently increased; that the delivery began in proper order, and at intermittent periods was found to be mixed; that finally the slide was found open and the screenings passed into the wheat—are circumstances which, though some explanations have been offered, remain as unpleasant suspicions of carelessness, and demand censure from the board. The great interest taken in, and the publicity given to these proceedings show how sensitive the members of the Exchange are on this subject. I trust that this censure, now administered, will suffice to impress the importance which the board attaches to this case, and to prevent a recurrence of so unfortunate a dereliction of duty, as a repetition would involve more serious consequences."



### THE HESSIAN FLY.

The entomological commission of the department of agriculture has published an instructive table and map which all who are interested in this matter ought to study. The map marks the approximate distribution of the Hessian fly by a dark shade extending over the infected states, embracing the whole vast tract of country north of latitude 35 degrees by longitude 93, with the addition of tracts in Dakota, Montana, Colorado, New Mexico and Utah. There is no certain proof of the plague having as yet extended west of Eastern Kansas; but that it has spread northward into Canada has long been known. The table shows the first appearance of the fly in Staten Island and Long Island in 1776. As early as 1779 it was recognized as a plague overspreading the state of New York, where crops of wheat were severely injured or wholly destroyed in Kings and Richmond counties. In this year it made its appearance in Massachusetts. From that date the too-prolific pests have increased as the sands of the sea; indeed, were it not for five distinct parasites of this fly, it seems probable that the cultivation of wheat would ere now have been abandoned in despair. Of these parasites, one pierces the sheath of the wheat stalk within which the pupa of the Hessian fly lies concealed, and though the hole thus made is so minute that it takes a powerful microscope to detect it, the egg of the friendly parasite is safely deposited, and its own young is in due time evolved. Another parasite deposits four or five eggs within that of the fly. The latter egg does, nevertheless, hatch, and the insect advance to the pupa state apparently none the worse, but there its life ends, for the parasite's young feed on it. By 1786 the Hessian fly conquered New Jersey and Pennsylvania, many crops being totally destroyed and others grievously injured. In 1790, while retaining a firm hold of the lands already in possession, the fly had overspread the states of Delaware and Maryland, and Dr. Mitchell, of New York, affirmed in 1800 that "the insect is more formidable to us than would be an army of twenty thousand Hessians," a speech, by the way, suggested by the erroneous supposition that this fly was introduced into America in straw brought to Long Island by the Hessian troops during the Revolutionary war, in August, 1776. It has now been proved that the pest could not have been introduced from Hesse, for it was unknown in Germany before 1857; whereas it has from time immemorial been known in the wheat fields on the shores of the Mediterranean—especially at Toulon, at Naples, in Spain, in Minorca, and in Asia Minor. Hence it is now believed that the fly was introduced into the States either from Southern Europe or from Asia Minor, before the Revolutionary war, and that it reached both Germany and Russia from the same source. Be this as it may, the sphere of devastation in America steadily widened, and in 1805 it first included Canada. That it did not spread still more rapidly is attributed to the absence of railways; and it is obvious that the present rapid transit of grain cars and bales of hay and straw largely increases the danger.

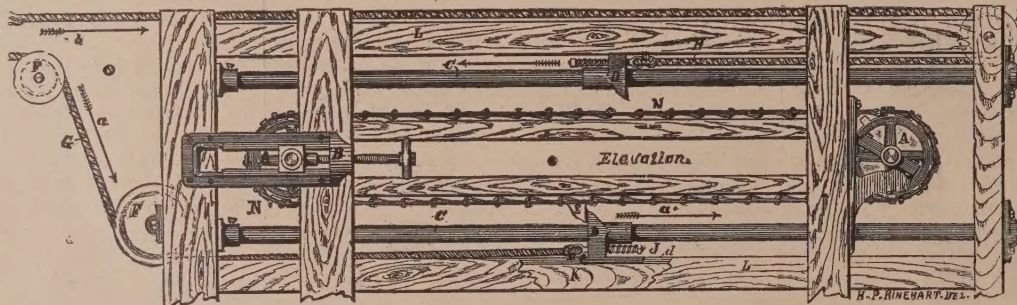
So early as 1788, when large quantities of wheat were being exported to Great Britain, the attention of the British government was arrested by the accounts of the havoc already made by this fly; and so great was the fear lest the pest should be brought in with American grain, that the import was prohibited until naturalists were satisfied that eggs could not be introduced by this means. In the following year Sir Joseph Banks drew up a report for the privy council, in which he stated that since the first appearance of the insect in Long Island it had advanced at the rate of fifteen to twenty miles a year, neither waters nor mountains impeding its progress. He told how it had been seen crossing the Delaware like a cloud; how within thirteen years it had reached Saratoga, two hundred miles from its birthplace; and how it had infested the neighborhood of Philadelphia and all the wheat counties of Connecticut, etc., ravaging wheat, rye, barley and timothy grass.

As regards this importation of wheat from Canada and the American colonies, some interesting entries have been brought to light by research for any mention of the Hes-

sian fly in the files of old Philadelphia papers. Thus, *The Pennsylvania Packet* quotes from a London paper of the 18th of October, 1773, that on the previous Friday the Active, from Quebec, arrived in the Thames with a cargo of wheat, being the first vessel that ever came to London from that port with grain. And the *Philadelphia Mercury* of the 22d of December, 1775, quotes a letter from Lisbon mentioning that the ports of London, Liverpool and Bristol, as well as every other port in England, have received from America immense supplies of wheat—much more than they can consume. Throughout the records of this century sometimes one state, sometimes many, have to note a grievous tale of destruction. And by the year 1877 it was found that the Hessian fly existed in numbers great or small over the whole wheat region, and that in almost every case it attacked the early-sown wheat fields. Hence, farmers who formerly sowed as early as September now defer doing so until the latter part of November; or sometimes till "between the Christmases"—i. e., between the days observed as Christmas, old and new style.

### THE RINEHART PATENT STEAM GRAIN-SHOVELING MACHINE.

The machine illustrated on this page, which has been before the public for some time, continues to hold a prominent place in the esteem of grain men, as is evidenced by the continually increasing number of them in use. Numbers of grain-handlers who employ the machine testify to its practical qualities, not the least of which is freedom



THE RINEHART PATENT STEAM GRAIN-SHOVELING MACHINE.

from the constant annoyance and expense of breaking scoops and ropes.

As will be seen by reference to the cut, it may be operated either vertically or in a horizontal position, the scoop ropes being in either case carried over shives in the usual manner. To describe the operation, *AA* are sprocket wheels, distant about sixteen feet or more, on which an endless chain revolves continuously while in operation, having a pusher link, *E*. Above and below are placed guide shafts, *CC*, on which are the reciprocating heads, *DD*, to which the scoop ropes are secured by the spring eye-bolt, *J*. The chain is supposed to be traveling in the direction of the arrow, *a*. The head, *D*, is propelled to a point where the propeller link, in passing around the sprocket wheel, leaves it. The scoop or shovel at the opposite end of the rope, in the hands of the operator, having at the same time arrived at the car door, is relieved of its load. The operator then returns to the end of the car, with the scoop thus drawing the rope head, *D*, back to the starting point, ready for another draft of grain on the arrival of the propeller link, which has in the meantime repeated the operation on the upper division of the machine, thus making it double acting.

Further information and references to users of these machines may be had by applying to the patentee and manufacturer, whose advertisement will be found in this issue.

In New York there were stored on March 20, 8,237,420 total bushels of grain, as against 12,494,129 on same date in 1886, and 6,903,550 bushels on corresponding date in 1885.

At a recent meeting of the grain section of the Board of Trade of the city of Toronto, Canada, a resolution was adopted urging the dealers and farmers throughout the country to discontinue the growth and sale of Mensury, Russian or Imperial varieties of barley, and also that more care be exercised in the selection of the red winter wheat seed used, and that it be well matured and not mixed with white winter wheat.



Chas. Kaestner & Co., of this city, have established a branch at Villa Lerdo, Mexico.

W. D. Rinehart, St. Louis, Mo., has recently shipped his patent grain shovels and friction clutches to Michigan, Kansas, New York and Chicago, and has many inquiries from these and other localities.

The Roller Chain Belting Co., of Columbus, Ohio, report that their sales are on the increase, having at the present time plenty to do, and able, with their facilities for manufacturing, to ship promptly.

The American Rapid Dryer Co., of Chicago, with an authorized capital of \$1,000,000, has purchased the inventor's interest in the Bates Rapid Champion Driers. The company is erecting a large plant in Chicago.

A trial of a newly-patented corn gatherer and husker will, in a few days, be publicly made in Vinton. Preliminary trials of the machine have been very satisfactory. If the machine proves successful its manufacture will at once be entered upon, Mr. S. H. Watson, a wealthy banker of Vinton, backing the enterprise with ample capital.

The Babcock & Wilcox Co., 30 Cortlandt street, New York City, sold boilers during March to the following parties: Singer Mfg. Co., Montreal, Canada, one 152-H. P.;

United States Senate, Washington, D. C., 312-H. P.; E. Jenckes Mfg. Co., Pawtucket, R. I., 240-H. P.; Cardenas Sugar Refinery (their sixth order), Cardenas, Cuba, 208-H. P.; Tennessee Coal, Iron and R. R. Co., South Pittsburg, Tenn., 624-H. P.; Gadsden Alabama Furnace Co., Gadsden, Ala., 624-H. P.; Gordon, Strobel & Laureau, Limited (their fifth order), Philadelphia, Pa., 480-H. P.; The "Journal" Co., Kansas City, Mo.,

200-H. P.; J. Langdon & Co., Inc., Shamokin, Pa., 208-H. P.; Metropolitan Street Railway Co., Kansas City, Mo., 600-H. P.; Francis Axe Co. (third order), Buffalo, N. Y., 61-H. P.; E. C. Knight & Co. (third order), Philadelphia, Pa., 480-H. P.; Dalzell Axle Co., South Egremont, Mass., 122-H. P.; National Tube Works Co., McKeesport, Pa., 155-H. P. Total, 4,467 horse-power.

The Link-Belt Machinery Company, of this city, report active business on hand, with their works running to their full capacity. They have recently had large sales of their perfected standard barrel, keg and sack elevators, which are coming into quite general use in ware and storage houses. In their general machinery department they are doing considerable marine-engine repair work, of which there is an unusually large quantity this spring.

Geo. J. Fritz, proprietor of the Central Iron Works, 2018 to 2129 South Third street, St. Louis, Mo., is obliged to keep on increasing his force of workmen in order to fill his contracts. He is at present building a jute softener for the Muncie Bagging Co., Muncie, Ind., and a 15-H. P. Fritz patent engine, with heater, an Independent steam pump, and a 42x84-inch vertical boiler, for the Kansas City Bagging Co., Kansas City, Mo. He has recently sold to the Shickel-Harrison & Howard Iron Co., of St. Louis, one 8-H. P. Fritz patent engine; to Geo. Stephan, St. Louis, one 8-H. P. Fritz patent engine, with boiler combined, and one No. 6 Sturtevant blower; to the A. Griesedek Brewing Co., St. Louis, for their bolting department, one 2-H. P. engine, with shaftings, hangers, pulleys, etc.; to the Peerless Laundry, of St. Louis, one No. 4 Dolph Washer; to Henry Sampson, DeKalb, Mo., one No. 2 Fritz patent eccentric doctor, with hot and cold water pumps; to Eccles & Yeager, Jacksonville, Ill., one 2-H. P. Fritz patent engine, with heater and pump; to the Sedalia Brewing Co., Sedalia, Mo., one rotary pump; to Wheeler & Herald, bottlers, Omaha, Neb., one Fritz patent double-brush bottle-washing machine, and to a sawmill in Arkansas one 12x16-inch horizontal engine. He is also putting up for the A. R. Beadle Printing Co., of St. Louis, one 4-H. P. Fritz patent engine and boiler.



## ELEVATOR ENGINES.

There is probably no line of trade to-day in which competition is so fierce as in the manufacture and sale of plain slide-valve engines. The makers of this class of machinery are no longer protected by any patents, but each one has to tax his ingenuity to the utmost to devise ways and means whereby the cost of manufacture shall be reduced to the least possible sum and yet maintain the quality of his product. In no department of mechanics has there been greater thought and care bestowed to produce a machine that shall combine, in the highest degree, the essential requisites of simplicity, economy, durability and utility.

Among the few firms who have achieved success in this line, through long years of experience, none is better or more favorably known by the grain men throughout the West than THE FROST MFG. CO., of Galesburg, Ill. This company was established in 1855 by enterprising New England mechanics, who came west at that early day and have grown up with the country. They started in a shed, with a horse as motive power, but have by good management and close application to business replaced the shed with fine brick structures, and have extended their trade through all of the Western States.

This company has more recently turned their attention to the manufacture of engines designed especially for the elevator trade. The accompanying illustration shows that they have certainly succeeded in reducing the number of parts to a minimum, while by the peculiar design of the bed they have secured the greatest strength for the amount of metal used, at the same time preserving a harmony of outline that is pleasing to the eye.

The engine is very carefully built on the interchangeable system—all parts being made strictly to gauge. All bearings are scraped, and are provided with ample means of lubrication. The best quality of steel is used in the piston, valve and connecting rods, and in the wrist pins. Each engine is set up and run with and without a load before being shipped from the shop, so that anyone receiving an outfit from them can feel sure that it has already been subjected to the most rigid tests. Every engine is supplied with a full complement of wrenches, oilers, oil-cans, etc., and is complete in every particular.

The firm report an increasing demand for their engines, and are obliged to carry a very complete stock on hand in all sizes to meet their orders promptly. They also manufacture their own boilers, and are prepared to bid on complete elevator outfits, including everything used in or around an elevator, which is very fully described in their catalogue and price-list, which will be mailed to anyone upon application.

Squads of enterprising psalm-singing crickets are endeavoring to destroy the young grain in the vicinity of Colusa, Cal. Like the time-honored custom of the small boy stoning the inoffensive frogs, it's fun for the crickets, but hard on the farmers.

F. H. Nichols is a young man who does a brokerage business in grain on the floor of the Produce Exchange, at New York City, but his ways heretofore have encouraged some of the "boys" around the grain ring to presume to play tricks upon him, which he has taken in good part without any resentment, and he continued to do a profitable business. One day recently he came upon the floor and called for an offer of wheat, when two or three, who presumed he was not serious, offered to sell him some May wheat at 91½ cents, the market price being ¼ of a cent above that. He took four loads, but when he called for the fulfillment of the contract the sellers tried to laugh him out of it. He proposes to hold them to their contracts according to the rules of the Exchange, and he will reap a good profit from those inclined to be funny with him.

## STATE GRAIN INSPECTION.

A meeting of the Chicago Grain Receivers of Chicago was held Friday afternoon, April 1, at 3 o'clock, in the directors' room at the Board of Trade Building. About twenty-five of the leading grain receivers were present, George M. How presiding. The attention of the meeting was first called to the petition of the farmers and grain merchants to the State Legislature asking for a change in the method of grain inspection as pursued in the state. This petition recites the evils of the present plan of state inspection, the loss to farmers and merchants by reason of it, and concludes by asking that the inspection of grain be relegated to the Chicago Board of Trade, as follows:

'Of the seven men who have filled the position of chief grain inspector in the last fifteen years, not one of them had any practical experience in the grading or handling of grain previous to their appointment, and no sooner had one of them learned something tending to the intelligent discharge of his duties, at least in an executive way, than he was rotated out of office to make room for a new man, who was invariably expected to study local politics more and practical grain inspection less. All

receivers of grain were a small part of the Board, but their interests were chiefly concerned, and they were of sufficient weight to merit consideration. As they had not received it they must help themselves. It is late to press this matter on the Legislature now so near the end of the session. He proposed that a committee be appointed to wait on the governor and present him the names of two men approved by the Board of Trade and endeavor to secure the appointment of one of them as chief inspector, thereby insuring a good inspection.

Then Mr. Pope got up and excoriated the governor. He said: "I don't think this suggestion would work with the governor. We have tried it before. Last fall we appointed a committee of representative men, including the wealth and influence of the receivers and including all interests. That committee petitioned the governor to retain the old inspector, Mr. Drake, who was able and efficient, but he dropped Mr. Drake and for political reasons appointed Mr. Price. We foretold the result. Our inspection, which before was honored the world over, became in six months a disgrace. A certificate is not as valuable as a piece of wall paper, and is uniformly rejected. This must continue, as Mr. Price is useful politically, and the governor cares more for his own political

interests than for the grain interests of the state. I think we must have a law to effect any change."

Mr. Beebe, as chairman of the Board of Trade Weighing Committee, asked the association to indorse a bill providing for a reform in weighing grain. This measure was introduced in the Senate Thursday, and is on second reading in the House. This bill is to secure the weighing of grain or seeds shipped to Chicago and to be transferred to other points by the railroads and by "hopper scales." Heretofore Chicago shippers have suffered much from loss in weight. For instance, grain shipped through Chicago East is not weighed accurately until it arrives at its destination, and there the weight given by the consignee must be taken. Heavy losses often occur. There is at present a state law oblig-

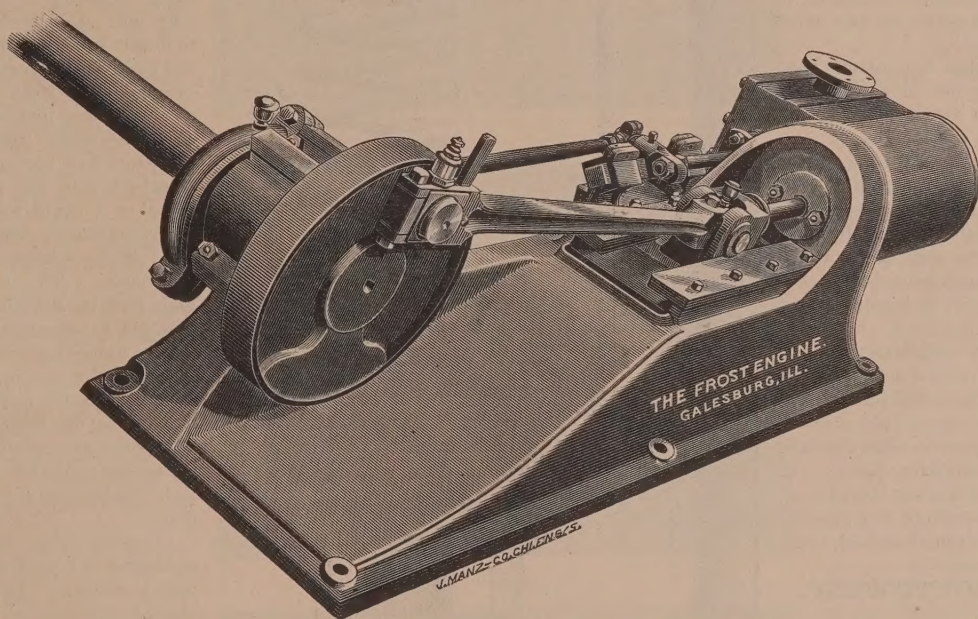
ing railroads to furnish weights, but the manner is not specified, and the weighing is done in cars and the increased or diminished weight of the car by wet or snow is not considered, so the operation is useless. This the proposed law obviates by compelling railroad companies to weigh the articles in dry hoppers. Mr. Beebe moved that this bill be approved and its passage urged. This was carried unanimously.

The same evil was attacked in the case of shipments stopping at Chicago and sold to persons in the city. In these cases, also, the weight given by the consignee must be taken by the commission man. It was urged that this should also be corrected by the proposed law, but it was thought that the Board of Trade could remedy this evil by proper action of its own.

The committee having in charge the change in the system of inspection met April 2 to draw up a bill, to be presented at Springfield.

A farmer at Stillwater, N. Y., who missed buckwheat from his granary, set a bear trap in the bin, and about midnight was awakened by a vigorous howling in the granary. On going thither he found one of his neighbors with both hands fast in the steel jaws of the trap. After a baker's dozen of stripes, well laid on with an ox goad, and a short lecture on the sin of stealing, the offender was allowed to depart.

The Bohemian oats swindle has caught some of the guileless Canadian farmers. Hulless oats have long been among the favorite "agricultural wonders" that come up periodically about once every ten years, and though good enough for meal, are of less value to the farmer than ordinary oats, inasmuch as they cannot be fed to horses without first being cracked or bruised. Any farmer who can be taken in by such stale frauds deserves to be fleeced—and he will be.



THE FROST ENGINE.

grain merchants in the West are fully aware of these facts, and have for some years past found outlets for their grain to the seaboard without passing through Chicago or being subjected to state inspection on its way. But now, when the Inte-State Commerce Bill is to be put in force and Eastern rates are readjusted, shipments of grain to Chicago will be largely increased on the basis of the shortest haul. This anticipated increase in the shipments of grain to Chicago calls loudly for a change in the management of the inspection, and we ask our legislators to make that change by relegating the inspection to the Board of Trade."

A committee of Chicago grain receivers had been previously appointed to have a law drafted in accordance with this petition to be presented to the Legislature. This committee, consisting of Messrs. Bensley, Pope, Hayde, Culver, Wright, Warren and Brown, reported that they had not had a bill drawn. An explanation of this "masterly inactivity" was called for, and Mr. Beebe announced that a majority of the Board of Trade directors had not yet approved this action, and therefore there had been some hesitation in instructing the attorney of the Board to make the draft. Mr. Wright, one of the committee, followed to the same effect, but a question by the chair brought out the true condition of things. The chair asked: "Is it not a fact that a majority of those interested favor the change?" Mr. Wright admitted that it was, and further stated that the speculative portion of the Board was not particularly interested and that it mainly concerned those receiving, shipping and exporting grain and seeds. The chair asked whether it was customary to consult the speculators, and Mr. Wright concluded it was not, still maintaining, however, that the petition was indorsed by the Board as a body.

James Hayde addressed the chair and said he was sorry to see so narrow a view taken of the matter. He said the



## THE PEERLESS AUTOMATIC LUBRICATOR.

From the accompanying sectional view and the following explanation the operation as well as the practicability of the lubricator can be readily understood.

Steam from boiler enters lubricator through top steam connection, passes through valve *f* to coil *A*, where, owing to so much exposed surface, it is readily condensed into water, which falls to the bottom of reservoir *B* through tube *a*. This elevates the oil with which the reservoir *B* has been previously filled in reservoir *B*, which flows out through the opening on side of reservoir near top. The flow is regulated by valve *b* which can be graded from one-twentieth of a drop to a stream through drip tube in glass *C*, where it can be seen feeding down drop by drop through valve *e* to lower steam connection from where the oil is forced to parts to be lubricated by a live steam current that enters lubricator at valve *f*, passes down through pipe *D*, through opening next to drip tube in glass *C*, through valve *e* and lower steam connection to steam pipe. Owing to coil condenser, there is never trouble for condensation even in the hottest weather. The oil being fed down through a steam-filled glass gauge cannot congeal and feeds readily in the coldest weather, tallow, beeswax or any other known lubricant.

Owing to live steam current that is constantly passing through lubricator forcing the oil down to the parts to be lubricated a positive feed is assured at all times.

The proprietors of this lubricator are the sole owners of letters patent No. 154,713 bearing date Sept. 1, 1874, which is over three years previous to the date of letters patent owned by Detroit Lubricator Co. and others for sight feed devices. This is the first patent issued showing oil dropping down through a steam-filled glass gauge. They are able to indemnify their patrons from infringement litigation.

Responsible parties in need of a lubricator can have one of the above shipped them (express charges prepaid) on 30 days trial, when, if not found perfectly satisfactory, can be held subject to manufacturers' order. While the accompanying cut represents a double steam connection cup, they likewise manufacture a single connection cup. So in ordering always state which style you desire. For descriptive circulars and price-list address PEERLESS OIL EJECTOR CO., Mansfield, Ohio.

## TRADE IN THE SOUTHWEST.

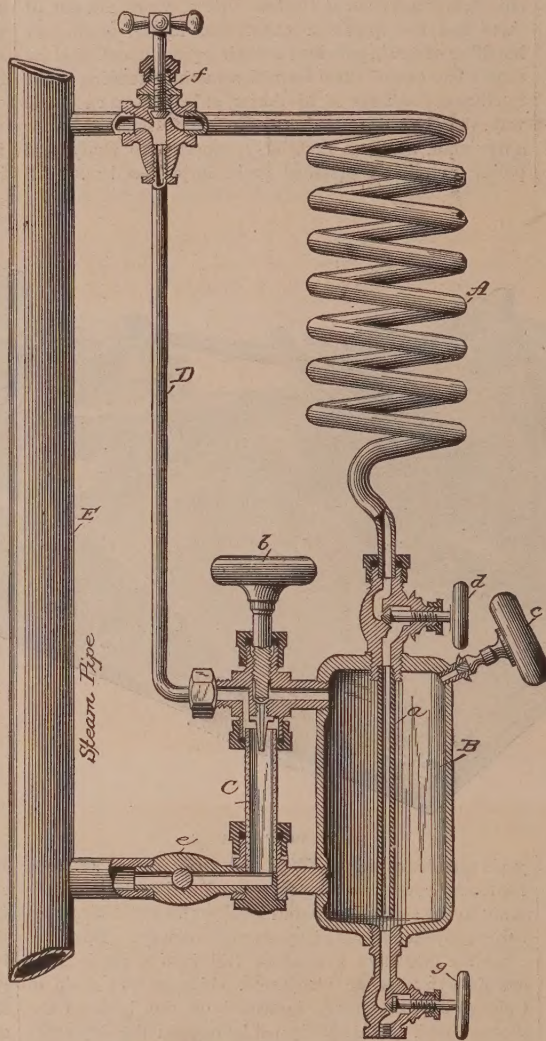
(Special correspondence AMERICAN ELEVATOR AND GRAIN TRADE.)

KANSAS CITY, Mo., April 12, 1887.

The article headed "The Bucket Shop Must Go," in the last issue of the AMERICAN ELEVATOR AND GRAIN TRADE, met with the hearty approval of all the commission men at this point. If there is a legitimate business man in this city who desires to see these vampires continue in business he has not made himself known to your correspondent. In looking about to see what good the few that have been established here from time to time have done, it is found impossible to place the hand on a single act that has had the best good of the people of this city at heart. A few weeks ago there was one running in full vigor here. It has died a sudden death—not because there was nothing for it to do while running, but because the proprietors found it wiser to close the doors after they had received immense amounts of money in the shape of margins. The breaking up of this firm had the effect of causing even the most ultra gamblers in futures to become absolutely disgusted. They conceded that they had rather risk their good money at the faro table than in the hands of these cormorants who in the long run have never been known to give their patrons value received. It is a wonder that this sort of gambling was not stopped years ago. The same law that stopped gambling by means of cards should have stopped that of gambling on margins. This class of business never represented anything else than something that did not exist. I have known the day when sales apparently made by bucket shops on wheat equaled double the visible supply in the land. Who ever heard of any commodity changing hands by means of bucket shops, unless it be the money of the victims hauled in to aid in filling the coffers of the unscrupulous keeper? It has been the history of these institutions to gobble in to-day what patrons had made

the day before. It is, then, with pleasure that it is noted that the bucket shops must go. The most dangerous element in the commission men's way is soon to be of the past, and it is hoped that it may never be resuscitated until Gabriel shall toot the horn, and then it will be in the fiery valley, where the honest grain men will be protected from all contagion by an impassable gulf.

The dullness noted in commission circles last month still continues. To be sure, there is more of a silver lining to the clouds that have hung over the trade for the past winter, yet this silver lining has not taken definite shape enough to give any great amount of confidence. The latest reports from the southern sections of Kansas are of a reassuring nature. It is said that the winter-wheat crop is looking decidedly better than it did four weeks ago. Now and then rains are heard of, and those



THE PEERLESS AUTOMATIC LUBRICATOR.

who have traveled most extensively through the section referred to declare that the predictions are for a full average crop if nothing adverse occur before the harvest. So far as corn is concerned, much cannot be said just now. The bulk has been planted, and the acreage is roughly estimated at 11 per cent. in excess of that of last year. Of course, all estimates this early in the season are only approximate. The more northern and western sections of the same state do not send in so favorable reports as the southern. The planting of corn is still under way, and will be for the next three weeks. Winter wheat does not show an average promise of a bountiful yield, and the future for 1887 is not as bright as had been hoped for. However, notwithstanding this, the state of Kansas is booming as it never did before. Immigrants are flocking in and buying up all the land that they can get hold of. Big prices are in many cases paid for these sections. Particularly is this the case when the land in question lies near a city. It is well known that there is not a city in the state but that is now having a boomlet. How long it will continue it is difficult to say. Why it should come to hand at the present season it is equally hard to explain. The outlook for the near future, as was stated above, is not of the best, and there are other states in the republic that even now make a better showing; yet, notwithstanding this, the people of the East who are seeking homes in

the West appear to be drawn to sunny Kansas by some irresistible influence. On account of this influx of Eastern population it is believed that the flow of wheat and corn from Kansas will be considerably curtailed this year. Nobody who has not been in the state can have an adequate conception of the enormous number of people flocking there. Each day the depot at Kansas City is crowded with women and children under the protection of husband and father hurrying to the promised land. In the fall there will be a slight return wave, but it will be as nothing in comparison to the influx.

It must not be supposed that no new elevators are being constructed in the state. Before the close of 1887 there will be more new elevators built in that land than ever before during one year. To be sure, the capacity of these will be rather limited, but they will be there and will have come to stay. Last year it was thought that the railroad furor would be of the past by the time spring opened. Yet it is not. Just as many new lines are under way as during the corresponding time last year, and each of these new roads means many new elevators and thousands of dollars to the state.

The leading grain men in the larger towns of the Southwest are agitating more and more the advisability of having a state board of inspection. And why not? Commissioners are appointed by the state to inspect cattle and the different classes of live-stock, and grain is as important a commodity in the national economy as live-stock. No state legislature could boom a country more than by sending abroad to the leading grain cities of the land the knowledge that first-class inspectors had been appointed who would inspect all wheat sent from the state, and that when they had passed on a car of wheat the consumer could be sure of getting exactly what he wanted and had agreed to buy. Such a scheme would beat the real-estate boom all to pieces. The only limit to the demand for the grain from the state that had gotten the name of being most just in inspection would be the limit of production. Kansas has grasped and settled the temperance question; why can it not also take up the protection of its two greatest productions—wheat and corn? It is at no distant day when every state in the land will have state boards of inspection, and this will do away with all necessity for the various boards of trade to be under the expense of running the gauntlet of inspections.

About two dozen manufacturers have applied for admittance to the city the past month, but among them were no millers. This class of men appear to steer clear of here just now. One gentleman who happened along the first of the month declared that he could get just as good rates, when the price of wheat was taken into consideration, from Newton, Wichita or Winfield for points of consumption in the South as from Kansas City. He held that this would be more and more so in the near future, when the Atchison, Topeka & Santa Fe should have been opened through the Indian Territory. Then a good market will be found all through the western sections of the Lone Star state, and the farther to the south of the state the miller will be the better it will be for his trade, as he can outsell the more distant millers by quite a margin.

The rates gotten out as a result of the inter-state railroad law are the subject of a good deal of discussion by grain men down this way. There is a good deal of disgust expressed, as is the case elsewhere. The leaders are now busy studying the schedule to see in what way other places have been more favored than this one. What the result will be it is hard to say. We shall have more to say of this in our next.

At present there is in store here 186,451 bushels of wheat, 175,060 of corn, 4,712 of oats, and 196 of rye. So it will be seen that the visible supply here is fast disappearing. Prices, however, do not go up correspondingly. There is very little difference between prices now and those of a month ago. The reason for this is better understood at Chicago than down this way. The people here do not fully grasp the situation, but expect to see a good sized bubble burst in certain circles that are affecting to control values at this critical season of the year. It is to be hoped that the bubble will not burst in such a way as to snow any of the good dealers under down here, as they have all they want to do to keep their heads above water until the influx of the new crop as it is.

The export flour trade of the United States with Brazil reaches an average of 650,000 barrels per annum.



## PLACING GRAIN-CLEANING MACHINES.

[From Advance Sheets of Howes & Ewell's Treatise on Grain-Cleaning.]

In too many cases improper attention is given to locating grain-cleaning machinery in the mill. It is now so almost universally admitted that upon the proper and thorough cleaning of the wheat depends the purity of the flour, that it is surprising to note how meager are the accommodations usually set apart for the reception of the grain cleaners. A small space scarce large enough to receive the separator or the smutter, or both, may be partitioned off in some corner of the mill, or they may be placed in the basement, and here in dirt and darkness is performed the operations upon which so much of profit or loss hinges. In many cases, of course, it will be perhaps impossible to provide what we would deem almost vitally essential accommodations in order to secure the best possible results from the operation of the machines, but inasmuch as the more nearly perfection of accommodation is secured the more satisfactory will be the operation of the machines; and inasmuch as in some instances ignorance of requisite conditions has been the reason why they have not been provided, we will very briefly state what we deem requisite to satisfactory and proper operation.

1. The machines should be so placed that access may be had to every part. In other words, plenty of room *all around* the machines should be provided.

2. Plenty of light—daylight—to reach so far as possible all sides of the machines should be provided for. The advantages of this can be at once discerned. In case of an accident the injury may be quickly gotten at and repaired. If necessity for adjustment arises, it may be quickly and intelligently effected. If the machine is not properly performing its functions, the reason why can be easily *seen*, not guessed at. In addition to this, a machine which has plenty of daylight around it is absolutely certain to receive better attention, be more regularly oiled and cared for than one which stands in almost darkness.

3. Machines should be rigidly secured in position. The frame of the machine is intended simply to support the operating mechanism. If permitted to oscillate or vibrate it will interfere materially with the operation of the working parts, and the result must, inevitably, be a more or less unsatisfactory product.

4. Particular attention should be given to the arrangement of the dust-discharging spout. Too great length of spout or trunk should be avoided. Abrupt turns in the trunk will detrimentally affect the operation of the machine. If discharge is made into a dust-room, the vent for escape of the air from such dust-room should never be less than three times the area of the trunk or spout discharging therein. In every case where such an arrangement is at all possible each machine should have its own separate discharge spout or trunk with separate and distinct outlet. Where this is not possible, then where connection with another trunk is made the area of the extension must equal the combined area of the spouts or trunks at point of connection. For instance, the diagram below represents a not uncommon way of connecting air or discharge trunks.

Assuming that the air currents are equal in volume and velocity, it will be obvious that the extension of the trunk beyond the point *D* will be loaded with twice the volume of air that it would be at *E*, and with three times the volume at *F* that it would be at *E*. In other words, the volume of air put in motion by fan *A* has freedom of exit until it meets the current generated by fan *B*, when its motion is retarded, and the combined currents from fans *A* and *B* are again checked by the current from fan *C*. Tightly close the exit or discharge spout of an exhaust fan, and no matter what power is applied to, or velocity given it, the fan will exhaust no air. Again, the exhausting power of any fan is governed by the area of its outlet as much as by its inlet; in fact, ordinarily more so, as the air drawn in suffers a certain degree of compression in its passage through the exit spout, by reason of frictional contact with the surfaces thereof. Any contraction of the outlet will at once make itself felt at the inlet. In other words, the fan will take in no more air than it can discharge.

Referring back now to *Fig. 1*, it will be apparent that beyond the point *E* the main discharge trunk, *G*, has

twice the quantity or volume of air to convey that it has before that point is reached. It will be seen that this main discharge trunk, *G*, is of the same dimensions as discharge spout, or exit, of fan *A*. Now, when it is borne in mind that the fan discharge is made of just such size as to properly expel the current of air generated by the fan, it will be obvious that double or treble that quantity of air cannot be satisfactorily taken care of by it. If one fan will generate a sufficient current of air to fill a discharge trunk, a dozen similar fans, revolving at a like speed, may discharge into that trunk, and the volume of air expelled by it will be in nowise increased over

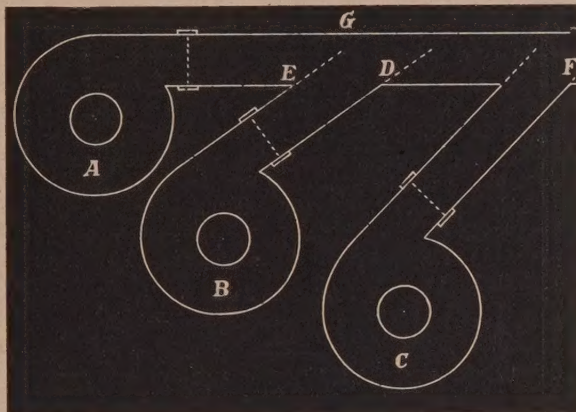


FIG. 1.

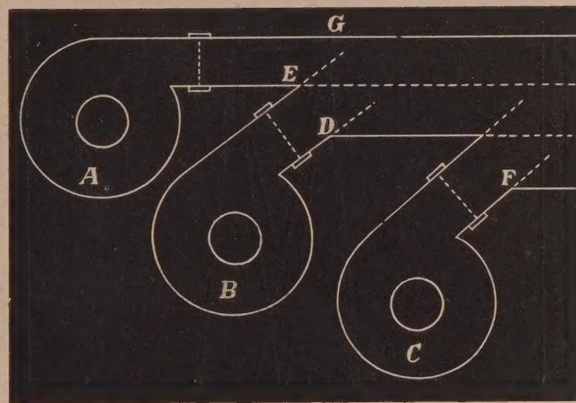


FIG. 2.

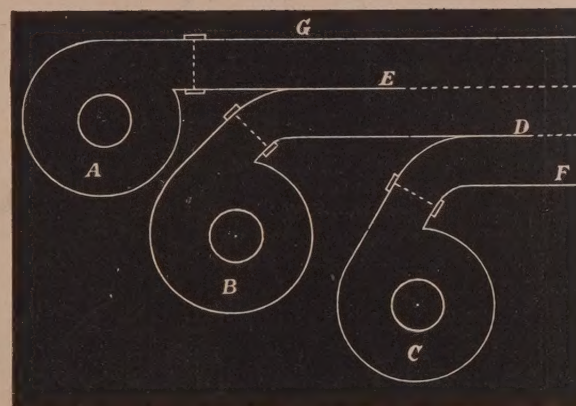


FIG. 3.

that which the one fan would cause to pass through.

As it is absolutely essential that a certain volume of air, moving at a proper velocity, be passed through a given quantity of wheat to properly remove and carry off the loosened impurities, it will require no argument to show that any diminution in this volume of air will result in an unsatisfactory operation of the machine.

We have said that where connection with a common air trunk is made the area of the extension must equal the combined area of the spouts at point of connection. There is, however, a right and a wrong way to secure this increase of area; or, perhaps, we should say there is a right and a wrong way of making the connections. *Fig. 2* represents a very common, but still wrong, way of doing it, *A, B* and *C* representing the fans and discharge spouts of three machines discharging into a common trunk *G*. The dotted extensions of the spouts from fans *B* and *C* indicate the direction of the air from them as it

enters the common discharge trunk *G*. The objection to this method of connection is that change in the direction of these currents is effected in the common air trunk, and in effecting this change eddies are formed which greatly interfere with the free passage of the air currents in their outward flow. In other words, the current from fan *B* must be deflected to its proper course by the force of the current from fan *A*, and the current from fan *C* is given proper direction by the combination of currents from fans *A* and *B*, thus more or less interfering with their free or proper action. This interference may be slight, but to the extent of its existence will its effect be detrimental and plainly discernible in the material under treatment.

If one fan requires a discharge spout of a given size, another fan discharging into said spout will curtail the capacity of the first fan one-half, and a third fan will curtail its capacity two-thirds, etc.

The proper manner of making connections to a common air trunk is shown in *Fig. 3*. By this arrangement direction is given to each current of air before it enters the common trunk, and no impediment to its free passage through is presented. But even with this arrangement imperfect action is possible should the volume and velocity of air from one fan happen to be greater or less than from another. To absolutely avoid this, partition the common air trunk as indicated by the dotted lines.

## FRANK HURD ON WHEAT PRICES.

A few years ago India had a protective tariff, placing high duties upon the products of Great Britain, as well as other countries. The Marquis of Ripon was appointed Governor-General with a view of bringing about an abrogation of these tariff rates. It was not long until this was done, and the markets of India were opened to the products of the world. Then began the development of the production of wheat. Systems of irrigation were adopted to make vast areas tillable. Thousands of acres were put into wheat which before had grown nothing. Railroads were built, so as to make communication and transportation between the interior and seaboard easy. The production of wheat increased enormously, and its exportation increased from a few thousand bushels to 40,000,000, the greater part of which was purchased by Great Britain, who paid for it with the products which our tariff laws forbade our farmers to receive. The difference between paying in products and in cash was enough to justify the great expenditure to make this development in India.

Every bushel of this grain has interfered with the sale of a bushel of American grain. All the exportations of wheat, both from India and Australia, have come into competition with our American exportations. Is it any wonder that the price of American wheat has gone down? Seven years ago I foresaw the condition which would naturally result in this regard if our tariff laws should continue, and lifted up my voice in warning to the farmers against them, but in vain. When wheat was over \$1 a bushel, I predicted that it would fall, through foreign competition, to 75 cents, which prediction has been fulfilled; and I believe now that this decline must keep on, as Indian and Australian wheat production increases, until our wheat will not realize enough to pay for the cost of raising it.

It is too late now to undo much of mischief which has been done. A prominent and intelligent Englishman said to me the other day that Great Britain was no longer dependent upon the American farmer. This is, however, not true to the fullest extent. But it is becoming truer every day. Much more delay in reducing our tariff, and the golden opportunities of the foreign market will have passed away from us for a generation. I would appeal to the farmer with all my earnestness to awaken to the necessity of tariff reform at once. You must act promptly and thoroughly, not to do injury to others, but to secure justice to yourselves; not to injure the business of others, but to save your own, and to save the channels of outflow to the world, without which your harvests will be as ashes and your plenty will laugh you to scorn.

The reserves of wheat in farmers' hands in France are growing very small, and the time is near at hand when free purchases of foreign wheat will be necessary.





Issued on March 15, 1887.

**CAR STARTER AND BRAKE.**—Frank M. Mahan and Adam R. Hendrix, Chicago, Ill. (No model.) No. 359,266. Serial No. 218,766. Filed Nov. 13, 1886.

**CRUSHING AND GRINDING MILL.**—Jas. F. Winchell, Springfield, Ohio, assignor to the Foos Mfg. Co., same place. (No model.) No. 359,588. Serial No. 182,953. Filed Nov. 16, 1885.

**GRAIN SEPARATOR.**—Noah Hollinger, Goshen, Ind. (No model.) No. 359,569. Serial No. 199,780. Filed April 22, 1886.

**GRAIN SEPARATOR AND GRADER.**—Erich A. Mueller, St. Louis, Mo. (No model.) No. 359,514. Serial No. 190,482. Filed Feb. 1, 1886.

**HORSE POWER.**—Julius A. Spencer, Dwight, Ill. (No model.) No. 359,475. Serial No. 220,738. Filed Dec. 4, 1886.

**LAG IRON FOR HORSE POWERS.**—Henry Moody, Terrebonne, Quebec, Canada. (No model.) No. 359,399. Serial No. 219,518. Filed Nov. 20, 1886. Patented in Canada, Jan. 12, 1886. No. 23,151.

**AUTOMATIC GRAIN WEIGHING MACHINE.**—Valentine Weber and Jas. R. Harrison, Princeville, Ill. (No model.) No. 359,525. Serial No. 188,647. Filed Nov. 23, 1885.

**MACHINE FOR REDUCING WHEAT AND ANALOGOUS GRAIN.**—Ransford Wilcox and Samuel L. Phillips, Milwaukee, Wis. (No model.) No. 359,586. Serial No. 198,447. Filed April 10, 1886.

**MACHINE FOR REDUCING WHEAT AND ANALOGOUS GRAIN.**—Ransford Wilcox and Samuel L. Phillips, Milwaukee, Wis. (No model.) No. 359,587. Serial No. 198,448. Filed April 10, 1886.

Issued on March 22, 1887.

**BAG-HOLDER.**—Lewis D. Spafford, Hull Prairie, Ohio. (No model.) No. 359,641. Serial No. 209,468. Filed July 29, 1886.

**CRUSHING AND GRINDING MILL.**—Wm. H. Bane, Galipolis, Ohio. (No model.) No. 359,659. Original Application Filed Dec. 19, 1885. Serial No. 186,071. Divided, and this application filed May 15, 1886. Serial No. 202,242.

**FANNING MILL.**—Heinrich Summerfield, Canton, assignor to John C. Hamilton, McPherson, Kan. (No model.) No. 359,944. Serial No. 212,639. Filed Sept. 3, 1886.

**FANNING MILL.**—Heinrich Summerfield, Canton, assignor to John C. Hamilton, McPherson, Kan. (No model.) No. 359,945. Serial No. 212,640. Filed Sept. 3, 1886.

**FEED GRINDER.**—Isaac Jay and Jas. C. Jay, Arapahoe, Neb. (No model.) No. 359,788. Serial No. 204,023. Filed June 3, 1886.

**DEVICE FOR TRANSMITTING POWER.**—Wallace H. Dodge, Mishawaka, Ind. (No model.) No. 359,596. Serial No. 206,794. Filed July 1, 1886.

**DEVICE FOR TRANSMITTING POWER.**—Wallace H. Dodge, Mishawaka, Ind. (No model.) No. 359,597. Serial No. 209,969. Filed Aug. 4, 1886.

**RAILWAY TRACK SCALE.**—Nicholas Scharle and Jacob Himmes, Chicago, Ill. (No model.) No. 359,636. Serial No. 210,243. Filed Aug. 6, 1886.

**TILTING VALVE FOR DIVIDING GRAIN, ETC.**—William Campbell, Cleveland, Ohio, assignor to William F. Putnam, same place. (No model.) No. 359,918. Serial No. 202,128. Filed May 13, 1886.

**MACHINE FOR CLEANING OR SCOURING WHEAT.**—Anders E. Jernander, Rochester, Minn. (No model.) No. 359,867. Serial No. 211,137. Filed Aug. 17, 1886.

Issued on March 29, 1887.

**CONVEYOR.**—James M. Dodge, Philadelphia, Pa., assignor to the Ewart Mfg. Co., Chicago, Ill. (No model.) No. 360,341. Serial No. 225,334. Filed Jan. 24, 1887.

**CORN HUSKING AND CRUSHING MACHINE.**—Eugene A. Porter, Bowling Green, Ky. (No model.) No. 360,044. Serial No. 208,220. Filed July 16, 1886.

**CORN SPLITTING AND CRUSHING MACHINE.**—Eugene A.

Porter, Bowling Green, Ky. (No model.) No. 360,045. Serial No. 208,608. Filed July 21, 1886.

**GRAIN CLEANER.**—Louis Prevost, Champoe, Or. (No model.) No. 360,361. Serial No. 175,484. Filed Aug. 27, 1885.

**FEED FOR GRINDING MILLS.**—Morris N. Elwell, Oneonta, N. Y. (No model.) No. 360,284. Serial No. 209,874. Filed Aug. 3, 1886.

**GRAIN WEIGHING APPARATUS.**—Harlan Hodges, Keota, Iowa. (No model.) No. 360,154. Serial No. 205,415. Filed June 17, 1886.

Issued on April 5, 1887.

**BALING PRESS.**—Wm. F. Kengle, Rockport, Pa. (No model.) No. 360,445. Serial No. 198,708. Filed April 13, 1886.

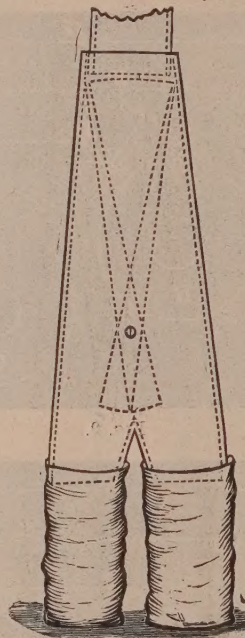
**APPARATUS FOR HANDLING GRAIN IN BAGS.**—George Francis, Ansonia, Ohio. (No model.) No. 360,578. Serial No. 207,108. Filed July 3, 1886.

**AUTOMATIC GRAIN SCALE.**—Robert F. Rice and Arthur M. Trude, Hartford, Conn. (No model.) No. 360,820. Serial No. 204,827. Filed June 11, 1886.

**STEAM DRIER.**—Charles H. Hersey, Boston, Mass. (No model.) No. 360,525. Serial No. 212,849. Filed Sept. 6, 1886.

### AUTOMATIC WORKING SPOUTS.

The accompanying cut represents an automatic spout, useful in many places where the nature of the material spouted is such that it exerts a strong side pressure. The principle upon which it works is very simple. One bag



becoming so full, the grain by its side pressure against the bottom end of the valve crowds the same over, causing the top end of the valve to shift to the opposite side, thereby shutting the grain out from the full side, yet allowing it an uninterrupted course to the opposite sack.

Thus the valve will continue indefinitely to direct the material to its proper receptacle. It is only necessary for this device, to insure reliability of action, to be made by a good mechanic, as the box must be properly squared and the valve accurately adjusted, otherwise grains will get fast between the edge of the valve and the side of the spout, causing the same to work sluggishly.

### THE NEW CHICAGO CALL BOARD.

Through the efforts of B. P. Hutchinson, who saw the necessity of a means whereby wheat trading might be successfully carried on, a Call Board has been organized, with the following officers: President, Charles Counselman; Vice-President, C. J. Singer; Directors, F. M. Baxter, W. B. Andrews, Robert Lindblom, W. S. Booth and B. P. Hutchinson. The officers met yesterday afternoon in the club rooms of the Rialto Building and perfected the organization. It was thought there might be some difference of opinion among the officers as to whether or not the Call Board should be run under the auspices of the Board of Trade. This question, however, did not arise, and thorough harmony prevailed. A committee was appointed to confer with another committee from the Board

of Trade looking toward securing the use of the Call Board room on the second floor of the Board of Trade Building. It is not the wish of the new organization to antagonize in any way the Board of Trade, as it is necessary from a business point of view that the relations be most harmonious. Those who are best acquainted with the steps taken thus far, have no doubt of the ultimate success of the Call Board, as all seem to follow the directions of B. P. Hutchinson, whose good judgment is recognized.

### STATE ELEVATORS.

[Speech of Capt. De Puy before the New York Assembly Committee of Ways and Means.]

The Committee: As a canal boat owner, and as a true friend of the people of this State of New York, I am heartily in favor of the state elevator bill. Knowing that the insignificant sum of \$250,000 invested by the state in six floating grain elevators, two to be operated in Buffalo at a charge of  $\frac{1}{4}$  of a cent a bushel, and four in New York at  $\frac{1}{2}$ , will reduce the cost of transportation on grain by canal over two cents a bushel. Whereas it will require an expenditure of at least \$5,000,000 on canal improvements to reduce the cost of transportation  $1\frac{1}{2}$  cents per bushel. We prove our assertion by the following exhibits:

Receipts and expenses per day of a self-propelling floating grain elevator in New York costing \$25,000, and transferring only four boat loads of grain, 32,000 bushels, at  $\frac{1}{2}$  of one cent a bushel.

#### RECEIPTS.

By transferring 32,000 bushels.....	\$120.00
By blowing on an average half of the grain transferred at an $\frac{1}{8}$ .....	20.00
Total receipts per day.....	\$140.00

#### EXPENSES.

Superintendent, \$3.50; weighman, \$2.75.....	\$ 6.25
Leg-tender, \$2.50; spout-tender, \$2.50.....	5.00
Engineer, \$3; fireman, \$2.....	5.00
Grain inspector, \$3; deckhand, \$2.....	5.00
Three tons egg coal, \$3.50.....	10.50
Oil and waste.....	75
Insurance at rate of two per cent. per annum.....	1.60
Liberal allowance for repairs, painting, etc.....	5.90
Total utmost expenses per day.....	40.00

Clean profit per day.....	\$100.00
For 210 days of canal navigation.....	\$21,000.00
Receipts and expenses per day of a floating elevator in Buffalo costing \$20,000, and transferring on an average only 50,000 bushels of grain per day, at a $\frac{1}{2}$ of one cent a bushel.	

#### RECEIPTS.

Transferring 50,000 bushels.....	\$125.00
Blowing one-quarter of the grain handled at an $\frac{1}{8}$ .....	15.62
Total receipts per day.....	\$140.62

#### EXPENSES.

Total utmost expenses per day, same as figured for New York.....	\$ 40.00
Clean profit per day.....	\$100.62
For 210 days of canal navigation.....	\$21,130.20

NOTE.—Grain scoopers' charges are not interfered with at either port.

The following table shows old rates, proposed rates and amount of tolls reduced per 1,000 bushels:

NEW YORK.			
	Old rates.	New rates.	Tolls reduced.
Grain.....	\$5.00	\$3.75	\$1.25
Ship.....	8.00	2.00	6.00
Canal boat.....	5.00	1.50	3.50
Blowing.....	2.50	1.25	1.25
Total.....	\$20.50	\$8.50	\$12.00

#### BUFFALO.

Grain.....	\$7.56	\$2.50	\$5.00
Ship elevating.....	1.25	Free	1.25
Ship steam shored.....	2.00	Free	2.00
Ship to trimmers.....	2.50	2.50	.....
Blowing grain.....	1.25	1.25	.....
Canal boat.....	1.25	1.25	.....
Total.....	\$15.75	\$7.50	\$8.25
Total both ports.....	\$36.25	16.00	20.25

Thus showing a reduction of over two cents a bushel, and yet allow the elevator to clear nearly its first cost every season. And there is not the slightest doubt but this two cents reduction in elevator charges, and the  $1\frac{1}{2}$  cent reduction by canal improvements, making  $3\frac{3}{4}$  cents a bushel, will increase our grain trade to the extent of the necessity of being compelled to work all of our elevators to their full capacity. Then, even at the reduced rate, the money invested in elevators will more than double itself every year. Although I have mentioned a reduced rate, it is exactly the rate charged before the late war. It is the identical charge made for transferring grain at the



ports of New York and Buffalo before pools and combinations come into fashion, and to-day people in our rival seaports are transferring grain for less money than we have figured to charge by state elevators. Now, the entire port charge at Philadelphia is \$2.20 per 1,000 bushels. Our proposed rate is \$3.75 in New York and \$2.50 in Buffalo. Well now, gentlemen, considering that our proposed rates allow the elevators to nearly pay for themselves every year, why not make the rate at once to correspond with the Philadelphia rate? When the police raid a gambling house they make a clean sweep. And on that principle it is better to do the inevitable without further delay.

Let us see how much money there is in \$2.20 per 1,000 bushels:

## RECEIPTS.

Transferring 32,000 at \$2.20.....	\$70.40
Blowing 16,000 at \$1.25.....	20.00
Total receipts per day.....	\$90.40
Total utmost expenses.....	\$40.00
Clean profit per day.....	50.40
Profit 210 days of canal navigation.....	\$10,584.00

The combination net rate in New York is \$14.50 per 1,000 from grain, and \$2.50 for blowing grain, \$17 in all; yet we can figure a good margin out of \$3.45 per 1,000. Thus, on the insignificant amount of grain handled for the boatmen last season, the over-toll collected amounts to \$972,400. Then the elevator owners have the ignorance or audacity to stand up and say trade is leaving us. We can't get anything to do. Why, our elevators are only worked to one-eighth of their capacity, yet we have to keep them manned for business. Now, gentlemen, who is the cause of Erie Basin, Brooklyn, being filled up with idle elevators the year round? Surely the people of the State of New York cannot be censured. They have made the canals free in order to keep every one connected with canal transportation steadily employed. The boatmen are freighting wheat late years for 4 cents a bushel. The average canal rate on wheat for the past seven years has been reduced two-thirds. The boatmen used to get 12 and 15 cents, now the average rate is only 4 cents. The people used to get 6 cents a bushel toll, but they have made the canals free, and are operating them at an expense of \$750,000 per year. Now, let us see what the elevator owners have done and said. When the free canal question was being agitated in 1881, Mr. Edward Annan testified that an eight of one cent a bushel would turn grain to or from any port. Now, we find that the combined elevator overcharge is eighteen eighths. Senator Titus, in his famous free canal speech in the Senate, said that a small fraction of one cent a bushel would turn grain away from the Erie Canal. The people were finally induced to give commerce the benefit of the last cent a bushel they were collecting for tolls. Now, we find that the elevator monopolists are exacting two and a quarter cents more than they are entitled to.

We further sustain our plea for state elevators by the following comparison:

The several charges for elevating, shoveling and trimming on a boat load of 250 tons of grain, without detention, are given below:

8,000 bushels wheat, Buffalo.....	\$112
8,000 bushels wheat, New York.....	144
Total.....	\$256
8,571 bushels corn, Buffalo.....	\$119
8,571 bushels corn, New York.....	154
Total.....	\$273
10,000 bushels barley, Buffalo.....	\$140
10,000 bushels barley, New York.....	180
Total.....	\$320
15,000 bushels oats, Buffalo.....	\$210
15,000 bushels oats, New York.....	270
Total.....	\$480

To these figures others are added in New York, such as fifty cents per day wharfage for canal boats, and much larger sums for the vessel into which grain is discharged, sometimes \$60 to \$75 per day, all of which involves serious taxation upon commerce by the water route through this state.

The Whitehead Bros., located at 517 West Fifteenth street, New York, wholesale dealers in sand and clay, get all of their boats discharged in the port of New York for 14 cents a ton, gross weight:

To discharge 214 tons gross, equal to 240 tons net, costs only.....	\$28.00
To discharge 240 tons wheat.....	
Grain pays \$40, boat \$40, ship \$64.....	\$144.00
Deducting trimming, \$28, leaves elevator net.....	116.00
To discharge 240 tons corn.....	
Grain pays \$42.85, boat \$42.85, ship \$68.56.....	\$154.26

Deduct trimming, \$30.20, leaves elevator net.....	124.06
To discharge 240 tons oats—	
Grain pays \$75, boat \$75, spouting into wagon \$75.....	\$225.00
Deduct trimming, \$22.50, leaves elevator net.....	202.50
Difference in favor of elevator on wheat.....	\$ 88.00
Difference in favor of elevator on corn.....	96.00
Difference in favor of elevator on oats.....	174.50

These figures sustain the Hepburn Committee's report that the elevator monopolies are barnacles on canal commerce and seem to have been organized for the purpose of tolling commerce to its utmost extent.

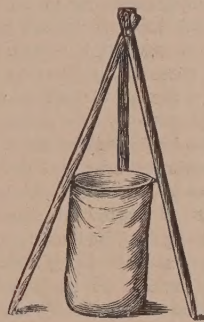
The committee comment upon this state of things as follows: "The attempt to cheapen transportation by doing away with tolls upon the canals must inevitably result in failure so long as the entrance to the canal and the point of delivery are under the control of such elevator combinations as these."

Mr. Sheehan—"What would we do when a vessel came into Buffalo with 80,000 bushels wheat?"

De Puy—"Why, we would land her alongside of our floating elevator, transfer her cargo immediately into ten canal boats, which will proceed through the state's free canal to the port of New York, where they boast of having thirty-five miles dock front, and get those idle elevators out of Erie Basin and retransfer the grain into ships which have been compelled, on account of exorbitant elevator charges, to go light around to Philadelphia and Baltimore for cargoes."

## A SIMPLE BAG-HOLDER.

W. E. Case, Essex county, N. J., sends us a sketch of one of his bag-holders. It is so light and compact that it can be carried easily from place to place. Mr. Case finds it especially serviceable in the woods when gathering



leaves. The apparatus consists simply of three light poles about six feet long, and loosely fastened together at one end with a small carriage bolt, and three screw-hooks at the proper height for holding the bag when stretched out, as seen in the illustration.—*American Agriculturist*.

## GRAIN TRADE OF LINCOLN, NEB.

Lincoln, Neb., is manifestly the great center of the grain trade in the West. Her superior railroad facilities have gained for her this important reputation. Many prominent Eastern exporting grain firms have located agents in the West, with headquarters at Lincoln, whose business it is to buy up grain in car-loads from the elevator men at the various outlying stations. The following is a partial list of those firms who have permanent offices there: Gill & Fisher, Baltimore; Reynolds Bros., Toledo and New York; Redmond, Cleary & Co., St. Louis; The Grier Grain Co., Peoria; John M. Corse & Co. and V. W. Bullock & Co., Burlington.

The fact that these firms have chosen Lincoln as the place for their Western agencies is conclusive evidence of their belief that it is the centre of and headquarters for the great grain fields of the West.

Another interesting fact concerning the grain interests of the city is the large number of grain buyers and elevator men located there, the total number of elevators whose owners and managers make headquarters there being seventy-eight. The following well-known firms have elevators at that point, and in various other towns of Nebraska, the number of elevators owned and operated by each being designated by the accompanying figures: T. W. Lowery, 23; Mason Gregg and Gregg & Kaiser, 20; Thomas Cochrane, 5; C. T. Brown & Co., 12; S. M. Little & Co., 4; Patrick Egan, 5; John B. Wright, 3, and Kendall & Smith, 6.

It is said to be a fair average for an elevator to handle 400 cars of grain in a year. A car will carry 600 bushels. This makes an average of 240,000 bushels to each elevator, or 18,720,000 bushels of Nebraska grain bought and handled by Lincoln men. The one thing needful now is a

sufficient number of mills and manufactories to utilize all this grain, without having to ship a bushel of it East.

## CORNERS AND SPECULATION.

## A PREJUDICED VIEW.

[By MAX SCHILLING, in St. Louis *Globe-Democrat*.]

Many arguments can be presented to justify speculation. The principal ones which will suggest themselves to any person giving the matter intelligent attention may be broadly outlined thus: The element of risk enters into the management of all business affairs. The flour which the wholesale dealer to-day buys in large quantities for \$5 a barrel, with the expectation that it could not be obtained a month later at a price less than \$5.50 a barrel, may be selling for \$4.50 at the end of the week. Some influence which he had not foreseen had weakened instead of strengthened the market, and he lost. This is an element of chance which no sagacity, judgment, or forethought can entirely eliminate, and it enters, to some extent, into every branch of legitimate trade. Speculation compels men, in order to gain, to study trade conditions thoroughly. If the speculator operates in wheat, he must ascertain the acreage of the crop, not only in his own country but throughout the world, as well as the condition of its growth and probable amount of it when it is harvested in the principal wheat producing countries. This will have to be added to the quantity which will probably be on hand at the time in the world at large. Then, knowing the amount annually consumed in the world, he would be able within certain narrow bounds to foretell the price of wheat during the coming five or six months, or until the harvest in the Asiatic or South American countries. All this time he must be alert to learn of frosts, freshets, drouths, or other natural phenomena which affect crops in one country or other, and estimate their probable bearing in modification of prices. This intelligent survey of crop conditions makes it possible to learn, several months before harvest, of a large increase or large decrease in crop, as compared with the general average. When it is known that a crop will be small, prices will immediately begin gradually to go up for the wheat on hand, even though the harvest may not come until two or three months later. Conversely, when it is known that the crop will be large, prices will at once begin to go down. In the one case the rise will be small, and in the other case the fall will be small, and in each it will be continuous. The wheat trade will thus be able to adjust itself to the gradually changing prices, without serious shock to the market. Before exchanges were established a short crop or a large crop would not be known until it was harvested, thus producing a violent fluctuation in prices and widespread disaster to trade.

The defenders of "privilege" trading contend that the practice of actually delivering the stocks or commodities is now more common than is the mere payment of differences, although they acknowledge that the latter is indulged in frequently as a convenience to both parties to the contract. They claim that when on both sides there is the intention that delivery should not be made the transaction may come under the designation of betting, or gambling, but not otherwise. The man who sells a "put" or a "call" they declare performs virtually the same function as an insurance company does when it takes a risk upon property. The seller receives an equivalent for what he sells, and enables him to put the securities in his hands to immediate profit, without any very serious risk to himself or the purchaser. He has a multitude of dealings of that class, and, presumably, the purchaser may have more than one. For this reason, losses and gains may, practically speaking, balance each other. Capital has thus been put in active operation, and the frequent purchases and sales prevent disaster by checking sudden fluctuations in the market. The friends of the system declare, too, that this species of insurance, as they term it, must, as time advances, perform a larger and larger function in the purchase of commodities and stocks which have a tendency to fluctuate in price.

Simon Sterne, a conspicuous New York lawyer and writer on political and economic questions, contends that many of the courts in late years have held contracting parties to their agreements in these cases, thus deciding, in effect, that dealing in this class of options is not gambling.

The principal arguments which can be urged in favor of dealing in the ordinary futures, as well as in that class of options called puts, calls, spreads, and straddles, have been presented. This reasoning is held by its friends to justify speculation in all the phases in which it manifests itself



to-day. This is the brokers' side of the question. It is plausible and apparently candid. But is it convincing? Does it close the great case in equity of the People against the Speculators? We shall see, and in doing so will answer speculators' professions with speculators' practices. In 1872 a few bold operators on the Chicago Board of Trade bought up all the wheat they could find in that city, or which was in transit toward it at the time the movement began, with the intention of creating a corner, and of compelling buyers not in the ring to pay such prices as the conspirators chose to extort. This was a corner, and to make the corner more effective manipulators leased all the wheat bins and elevators in the city, so as to keep out the wheat which was attracted by the high prices which the corner had caused. The cornerers, however, did not possess sufficient financial strength and dexterity to hold the market long. A collapse came, as it ultimately would in any circumstances, and prices dropped below the mark touched before the corner began. Such of the schemers as remained in the deal until the break occurred, of course, lost about all they had made by the temporary rise. What is of a good deal more consequence, however, hundreds of honest dealers who had bought for future delivery found the market prices at time of delivery lower than at the time of purchases and many of them thus lost the savings of a lifetime. In the meantime, tens of thousands of poor persons who were compelled to purchase during the high prices suffered.

The next notable corners were those of wheat and pork in 1879. The operators in one of these schemes—the wheat deal—were a little more successful than those who engineered the corner seven years earlier. The wheat crop of 1879 was the largest in the history of the country up to that time, and this fact aided the cornerers in putting the prices down until they had purchased all the wheat they cared to carry. They did not rely on the simple effect of the knowledge that the American crop would be large, however. By the free use of the telegraph they circulated stories throughout the country of a large yield in Europe, when, in fact, the yield there was light, and thus frightened farmers and small dealers into selling for low rates. In this way the schemers obtained possession of 70,000,000 bushels. By the time they had acquired this quantity they had run the price down to eighty-one and a half cents a bushel. Then, feeling confident that they could control the market, they raised the price to \$1.33. The cornerers, when engaged in the work of buying up all the wheat in sight, refused to sell any of it for export, although the price offered would have paid them well at the time. When they had fixed their own prices, after getting possession of the market, the rate was so high as to put it beyond the reach of the exporters. The countries of Europe which had hitherto looked to the United States to supply their needs in wheat now turned to India. And thus virtually began the great impulse in the cultivation of wheat in that region which has made India the great rival of the United States in wheat exportation. An expert, who made a careful computation of the effects of that deal in cutting off exports and increasing prices to American consumers, declared that the loss to the shipping and railroad interests and the people reached the stupendous sum of \$300,000,000. And this calculation fails to take into account the vast damage which it caused, by developing wheat production on a large scale in India, thus raising up a powerful competitor whose wheat, as it is set down in European markets, affects injuriously the price of every bushel hereafter to be produced in the United States, the income of every farmer in the United States through all coming time.

The history of the wheat corners of 1881 and 1882 is a repetition, in some respects, of the history of those of 1872 and 1879. Each was more successful for the cornerers however, than that of 1872, and neither was as disastrous to the legitimate trade interests of the country as that of 1879. All that could be obtained was bought up by the rascals at the head of the movement and held for the higher prices which were sure to come. They attempted to obstruct the tracks leading to Chicago so that no wheat could come in after they began their cornering, except what belonged to them. They even sent millions of bushels out of the country at a sacrifice of from 5 to 12 cents a bushel. Every scheme which the diabolical ingenuity of the cornerers could conceive of was resorted to to make wheat scarce and dear. The effect of this is seen in the prices of that product in Chicago in those years. The fluctuations were between 96½ cents and \$1.43 a bushel in 1881, and between \$1.42 and 91¼ cents in 1882. As a consequence of these corners, cars and steamers were compelled to lie idle for weeks and then overwhelmed with

work for short periods; mills were obliged to alternately close their doors altogether, and then run night and day, while merchants were rendered bankrupt, and tens of thousands were brought to the verge of starvation. There was a general demoralization of trade in the most important business centers of the country. Strikes and lock-outs ensued, and in this way many millions of dollars were wasted. The labor troubles in Pittsburg alone, which were precipitated by these corners, are understood to have resulted in a loss of \$10,000,000.

Economists are fond of proclaiming that the law of supply and demand governs prices in the world of trade. But a new and powerful agency has injected itself into commerce since the days when Adam Smith, the Says, the Careys, and Mill lived and wrote. This agency is the great exchanges at our business centers. The industrious and guileless farmer of the Illinois, Iowa and Missouri prairies learns by telegraph that the wheat crop in Europe is a failure, and confidently expects an advance in the price of his product. The advance may come or it may not come, as suits his masters of the Chicago Board of Trade. Indeed, assuming that the report of shortage in Europe is not a canard, circulated in the interests of a clique in that institution, the probability is that the advance will go to the speculators alone, leaving the farmer no better off than he was before. Prices of railroad securities do not necessarily bear any relation to the earning powers of the roads, but only to the relative strength of one combination of men on the New York Stock Exchange who attempt to force up these securities, and of another combination in the same institution who attempt to hammer them down. Similar prices of corn, cotton, petroleum, and pork are not an index of the relation between the amount of these products which the world has and the amount which the world wants. It simply marks the proportionate amount of money, lying, and duplicity exerted by the bulls and bears respectively at the same time being on the exchanges where the prices of these commodities are manufactured.

We have seen how the law of supply and demand has been temporarily set aside by the magnates of the exchanges. It can also be shown that these individuals as freely exercise superiority over the laws of the land. There are many cases on record in which honest members of the Chicago Board of Trade have attempted to obtain redress in the courts against the buccaneers who had spoiled them, but these attempts failed. The highest court of Illinois repeatedly decided that the Board of Trade was a voluntary association of individuals, and that, practically in the matters referred to, it was not amenable to the law. Legislatures may pass laws against transactions on exchanges in which there is no intention to deliver, but the gentlemen who are running the present pork deal in Chicago laugh at all such enactments. Theoretically, the big exchanges forbid trading except when there is an intention on the part of the seller to deliver and on the part of the buyer to receive. Actually, however, there is seldom such an intent, and, in the very nature of the case, there cannot be. As much wheat has been sold in a single day on the Chicago Board of Trade as was in existence in the entire United States at the time. The sales of wheat in a year in that institution are greater than the crop of the whole world in any ten years since wheat production began. The corn production in a twelvemonth is small beside that which the brokers harvest in half that time in LaSalle street, Chicago. More hogs are sometimes raised in the pork pit of the Board of Trade in a week than all the farmers of Illinois can raise in a year. To expect any intention of actual delivery in all the transactions of our big exchanges would manifestly be absurd.

As already intimated, the wheat corner of 1879 is believed to have resulted in a loss of \$300,000,000 to the country by the temporary and unnatural advance in prices of that commodity, the decrease in exports which the advance caused, and the consequent damage to railroad and shipping interests. The half-dozen or more big corners which occurred since that time, including the pork deal now in progress, undoubtedly have entailed an additional loss on the country much more than twice as great as this. In fact, if a fair computation were made as to the damage to the country by the gigantic combinations of the freebooters of the exchanges within the past eight years it would be found to reach the stupendous aggregate of \$1,000,000,000. This is an amount about three-fourths as great as the entire national indebtedness of the United States at the present time, after the cash in the treasury is deducted from the total debt.

The drain upon the country from its 1,000 or 2,000 bucket shops, needless and criminal as it is, is trifling when compared with the amount annually stolen from the pocket

of the people of the United States by the Jack Cades of the New York Stock Exchange and by the Chicago Board of Trade.

The great exchanges, if conducted within the lines which the founders marked out, would perform an important and beneficial function in the world of trade. For years past, however, the energies of these institutions have been exhausted in battles between cliques among their members, in which prices were arbitrarily depressed or advanced beyond the level at which they would rest if the law of supply and demand were permitted to have sway. In many cases these fluctuations have seriously affected prices, not only throughout the United States, but also throughout the remainder of the civilized world. Every dollar which the buccaneers of the pork deal add to the price of pork represents a sum, be it small or great, which is taken out of the pockets of each of the 200,000,000 people of Europe and the United States who use that commodity. And in a strictly ethical sense, this robbery is as flagrant and criminal as if it were performed by the aid of the revolver, the bludgeon, or the jimmy.

Jesse James hounded to death by the officers of the law, and "Jim Cummings" immured in a bastille in Jefferson City for stealing thousands, while the highwaymen of the stock exchanges and boards of trade are permitted to freely and openly perpetrate robberies which reach tens of millions. Such are some of the grotesque discriminations which society ordains in the closing years of the nineteenth century.

### "CALLS," "PUTS," "STRADDLES" AND "SPREADS."

John Jones, merchant, mechanic, or whatever he may be, contracts with Russell Sage, broker, for Sage to deliver to Jones, at any time when Jones calls for them within a specified period—thirty days, ninety days, six months, etc.—1,000 shares of Delaware & Lackawanna stock, at a certain price, Jones paying a margin on the purchase. In this transaction Jones buys a "call."

Jones contracts with Sage for Sage to buy from him within a stipulated time and for a stipulated price 1,000 shares of Delaware & Lackawanna. Jones, as in the other case, paying a certain margin on the purchase. Jones in this transaction, which is the reverse of the preceding one, buys a "put." The margin in calls and puts is usually about one per cent. of the purchase price.

Jones contracts with Sage, Sage agreeing within a certain specified time to buy from Jones or to sell to Jones 1,000 shares of Delaware & Lackawanna, at the market price of the stock at the time the contract was made, say 102. If the price within that time goes up to 103, Jones compels Sage to sell him the stock at 102, when he disposes of them in the market at the market rate. If the price goes down to 101, Jones buys 1,000 shares for 101 in the market, and compels Sage to purchase them from him at the stipulated price, 102. In this transaction Jones buys a "straddle."

Jones contracts with Sage for 1,000 shares of Delaware & Lackawanna at 100 and 104, the market price at the time of the contract being 102, Jones having the privilege to compel Sage to sell him the stock at 102 if it should go above 104, and to compel him to buy the stock from him at 102 if it should go below 100. Jones in this case buys a "spread."

"Straddles" and "spreads" combine the features of "puts" and "calls" together. As the element of risk is assumed to be smaller in these transactions than in "puts" and "calls," the margin which the broker requires is correspondingly larger. Jones, it will be seen, makes, providing he holds a "straddle," if the market goes up or down after his contract is made. If he holds a "spread," he makes if the market goes either above or below the points stipulated in the contract.

These are illustrations of the principle in dealings in privileges in any speculative stocks or commodities. Jones, the hypothetical holder of the privilege, simply bets either that the market price will not go up or go down, or that it will not go up or down beyond a certain point, as the case may be, Sage taking the bet. In fact, the element of chance is as distinctively and conspicuously present in these transactions as it is in those of the pool room or the gambling table.

The total sales at New York in wheat for the week ending March 26 amounted to 29,372,000 bushels, against 43,861,000 bushels last week and 31,388,000 bushels for the corresponding week in 1886.





## COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

### A NEW ELEVATOR.

*Editor American Elevator and Grain Trade:*—Mr. Thomas Duncan will build a small horse-power elevator at Bladen, Neb., as soon as material can be got on the ground. I have the contract for the job complete.

Yours very truly,  
J. A. CAMPBELL.  
Lincoln, Neb.

### GRAIN ELEVATOR PROPERTY WANTED.

*Editor American Elevator and Grain Trade:*—I am looking for grain elevator property in Kansas, Nebraska or Iowa. If you have any property of this kind advertised for sale in your paper, and will forward me the address, I will esteem it a kind favor.

Respectfully yours,  
GEO. W. BUSH.

Joliet, Ill.

### THE INTER-STATE COMMERCE BILL.

*Editor American Elevator and Grain Trade:*—Whatever may have been the effect of the Inter-State Commerce Bill at points further east, the result of its going into effect has been disastrous out here (Kansas). The shipments from Kansas City have been small, and the movement of grain all through Kansas and Nebraska has been seriously checked. What relief is to come I fail to see, unless the commission comes to the relief of the far Western shipper.

Yours truly,  
A.

### CHICAGO INSPECTION OF GRAIN.

*Editor American Elevator and Grain Trade:*—If any proof is needed of the faulty inspection of corn in Chicago, just take the prices of No. 2, 3 and 4 corn and compare them. It is not possible that there should be so small a difference in the price of different grades, if the corn were properly inspected. Nearly all the corn sent from this section is No. 2 according to any fair and reasonable inspection, and yet any amount of it has graded No. 3 and lower.

Yours,  
IOWA.

### BOARD OF TRADE vs. STATE INSPECTION.

*Editor American Elevator and Grain Trade:*—Before shippers join in the hue and cry to have the grain inspection at Chicago taken out of the hands of the state and put into that of the Chicago Board of Trade, I would ask them to remember one thing. Although the interests of the grain handlers on the board may be identical with our own, it is a fact that the speculators are always interested in keeping the inspection way up out of sight. Rigid as inspection has been in Chicago, I really believe it would have been worse had the board had full control. No; as between the state and the board, I for one prefer state inspection.

Yours,  
A. L.

### THE BOARD OF COMMISSIONERS.

*Editor American Elevator and Grain Trade:*—Chicago papers have abounded with criticism of Gov. Oglesby's action in removing the Chicago member of the Railroad and Warehouse Commission and putting a third member from the country in his place. While I do not believe that political appointments furnish the best method of carrying out laws relating exclusively to trade and commerce, I nevertheless fail to see why Chicago should be entitled to a member of the commission. So far as the railroad part of the services is concerned, no one doubts that three country members will do as substantial justice as three city members; and so far as grading and inspection is concerned, is it not better to protect the interests of hundreds of shippers than the few in Chicago who are interested in depressing grades? A board of country commissioners will certainly see that the shippers receive justice.

Yours,  
W. A. P.

Messrs. Seeley, Son & Co., Fremont, Neb., write us that they have three new elevators under way, and that the outlook is the best they have had in the firm's history.

## TRADE AT PHILADELPHIA.

PHILADELPHIA, April 9, 1887.

*Editor American Elevator and Grain Trade:*—The changes in freight rates that became operative this week have had a disturbing effect upon business in some departments. Merchants have not yet become accustomed to the new schedules, and there is still much uncertainty as to how the new law will affect the interests of special trades and localities. The prevalent misgiving in the public mind has not been allayed by the decision of the Inter-State Commerce Commissioners to temporarily suspend the application of the short-haul principle to the Southern Railway Association. The decision makes probable a general exemption of the railroads from the operation of this principle until the subject shall have been thoroughly investigated by the commission. As this course will involve renewed confusion in the traffic arrangements of many shippers in various sections, and practically annul the benefits of the new law for several months, its possible adoption throws a new element of uncertainty into the calculations of traders already sufficiently perplexed by the changes in merchandise classifications and rates of freight. Commercial activity has been better sustained, however, than had been previously thought probable under the circumstances. There has been a falling off in the movement of some lines, because the wants of the buyers had been largely anticipated during the closing weeks of March, but in other departments the volume of business has kept up well. The promise of better weather conditions is stimulating new enterprises in various directions and quickening demand from consumers; and while a moderate lull in trade in some lines is to be expected after recent activity, the indications point to a very good distributive business in most departments throughout the month.

The impairment of the wheat crop outlook by recent freezing weather, damaging winds in the West, and the absence of rain on the Pacific coast has continued to furnish support to the market this week. Speculation has extended from the May deal to later months on the theory that the harvest will be later than usual, and that manipulation will be thus afforded a better opportunity to advance the market for the July option. Business has been less active during the week, owing to the closing of several of the Western exchanges on Tuesday on account of the elections and the general holiday suspension of trading yesterday. The interior movement has fallen off slightly, and exports, though more than double the totals for the corresponding time last year, have been a little smaller than in immediately preceding weeks. Prices have been somewhat irregular, the close on Thursday showing a net decline since our last review of about  $\frac{1}{2}$  cent per bushel. Demand from millers has been light. The corn market is  $\frac{1}{4}$  to  $\frac{3}{8}$  of a cent higher than it was a week ago, the rise in prices reflecting the effect of the stronger market for wheat. Speculation in corn is comparatively moderate, and exports are smaller. The interior receipts of corn last week continued large, and the shipments from Western markets were not proportionately liberal, so that stocks at primary centers have accumulated. The visible supply statement this week showed a gain of 1,437,000 bushels in corn, and a decrease of 825,000 bushels in wheat. The oats market has ruled firm and  $\frac{1}{4}$  to 1 cent higher, under light receipts and a fair local trade demand.

The commerce of the port of Philadelphia last year was a little in excess of the year before, but our exports were much less than in 1885. The value of our exports was \$36,607,386, a decrease of \$3,674,353 from the figures of 1885, less than for any one of the ten preceding years. There was a decrease of ninety-six vessels in the clearances from the port. The entries of vessels increased by fifty-five, and the clearances would have shown a corresponding increase had not the Pennsylvania Railroad Company discriminated against the city to such an extent that more than 151 vessels were forced to leave here in ballast and to obtain outward cargoes at other ports. The decline in our export of corn was more than 4,000,000 bushels, the figures for 1886 having been 2,000,000 bushels, against 6,088,330 bushels for 1885. Baltimore, on the other hand, showed an increase in corn exports, its total shipment for 1886 having been seven times as great as that of Philadelphia. Our exportations of flour also declined more than 50 per cent. These figures should be interesting to those merchants who keep silence while their representatives in the legislature at Harrisburg are blocking the only way by which Philadelphia's commerce can be placed on a proper footing. One thing our protective

tariff is doing for us very rapidly: it is schooling other commercial peoples to get along with as little of our staple products as possible. The rapid increase of wheat acreage in India and Russia, the growth of the cattle trade in South America, the enlarged production of cotton in India and Egypt, and the output of petroleum in Russia and India, all operate to curtail the consumption of our most considerable exports. When we can no longer sell to foreigners our surplus wheat, corn, oats, flour, cotton, beef and petroleum we shall be badly off, indeed.

The Philadelphia & Reading Railroad Company has determined to begin at once improvements to the shipping facilities of the company at Port Richmond. The general manager states that the amount to be expended will reach \$200,000. The buildings will be converted into warehouses, and additional freight sheds will be erected. The company has received assurances from the managers of the Port Richmond elevator that they will co-operate with the railroad in trying to build up a large distributing business from that point through steamers. No special effort has been made in the past to give the vessels coming to this port a full cargo of grain from the elevator, and in consequence of this vessels have had to make up cargoes from other points in the harbor. Under the new regime special efforts will be made to keep the elevator well filled with grain, so that all vessels coming to Port Richmond in search of a grain cargo can always be supplied. President Corbin, it is also stated, will, upon his return home from Florida, put himself in communication with vessel-owners, offering them at all times full cargoes of freight from Port Richmond.

Interest in the movement to secure better terminal facilities from the Baltimore & Ohio Railroad in Philadelphia called a number of business men to the Board of Trade rooms the other evening, but, without taking any action upon the subject on hand, the meeting adjourned.

There is nothing gloomy in the business outlook. Things are active. Importers are laying in large lines of standard and expensive goods, as the daily custom-house records show. Manufacturers are busy, but they have learned a severe lesson too well to stimulate excessive production. Wholesalers report an active trade, and the general retail trade is excellent, as good orders and prompt collections prove. New enterprises of a legitimate character are starting every day, and capital is freely offered for such ventures. All is activity, but there is no wild speculation. When the flood of prosperity began to rise some months ago the speculators tried to hurrah it into an insane boom, but they were held in check by conservative merchants. The big provision kings attempted to boost things out of all reason, and failed signally. Some enterprising gentlemen in the wheat line tried to make grain soar skyward, like a rocket, and the soaring has not been seen yet. Other gentlemen, thinking iron was too dull, attempted to galvanize it into a boom, but the weight was too heavy for their hands. These efforts and their failures show distinctly that the common sense of legitimate business men is all-powerful—now, at least—to prevent a wildcat era to be followed by another crash. We believe good times will remain with us. There is no overplus at our mills, no reckless system of credits, no post-panic timidity to fight against. The country is prosperous, and all who want work have a good chance to find it. Best of all, the commercial world seems hopeful as well as cautious, and as a stout heart is far more than half of any battle, this fact alone is a strong indication of continued prosperity.

Chief Grain Inspector John A. Foering celebrated the completion of ten years in office on Friday evening last by entertaining his employees and the warehousemen of the city at Carncross Opera House, and afterward with a supper at Dooner's Hotel.

The supply of grain tonnage is moderate, but demand is light and rates lower. Two steamers were chartered for Cork this week for orders at 2s 3d, and two sailing vessels for Lisbon at 10c. No room offering in regular line steamers.

J. C. D.

Some time ago a gambling machine on a new plan was located at Kansas City, Mo. The device was a cross between a bucket shop and a wheel of fortune. Wheat could be purchased and a revolving machine would throw out numbered cards showing whether the purchaser would win or lose. The machine and the markets had no connection whatever, and telegraphic reports had no effect on that wheat pit. The place was threatened with a raid by the authorities, and the proprietors wisely concluded to seek fresh fields and pastures new.



## INCIDENTALS.

New York State produced 11,093,000 bushels of wheat last year, from 680,493 acres.

New Orleans bids fair to become an important point of export for grain and produce for the West.

There are 25,921,841 bushels of grain in store and afloat in Chicago, about one-half of which is wheat.

Winter storage has expired, and grain is now stored on summer rates on a basis of  $\frac{3}{4}$  cents for the first ten days.

The Libbey Elevator in this city, with a capacity of almost 120,000 bushels, has been made "regular" by the Board of Trade.

The imports of wheat into Germany are not so large as was expected, the net imports for the six months ended Feb. 2 not reaching 4,000,000 bushels.

The shipments of wheat from Minneapolis the week previous to April 1 were the largest ever known, owing to the fear of shippers that freights would be raised on that date.

The Indian corn crop for the season of 1886, from 75,695,203 acres, is 1,665,441,000 bushels. In 1879, from 60,274,000 acres, the yield was 1,754,000,000 bushels. The quality of the last crop was exceptionally fine.

Stocks of wheat at Odessa have been rapidly diminishing, the fresh supplies being insignificant. The shipments from Jan. 1 to March 5 had only amounted to 314,000 chets., against 546,000 chets. same time last year.

Barley and other grains mature about twenty days quicker in Sweden and Norway than in Spain and Italy. The reason is to be found in the length of the summer days in high northern latitudes. Grain grown in the far north continues to ripen early for several years after it has been brought south.

According to the crop reporters of this state there is less corn in the hands of buyers or farmers than there was a year ago. This is also true of the other states belonging to "corn surplus states." The shortage in these seven states amounts to over 137,000,000. If the demand should prove equal to that of last season, there would be a good prospect for better prices.

Lincoln, Neb., is making headway as a grain receiving and shipping point. The *Daily State Democrat* of that city claims that "evidences multiply on every hand that Lincoln is the center of Western trade." It is said that the heavy exporting grain firms of the East have selected Lincoln as headquarters for their Western business. The total number of elevators owned and managed by Lincoln parties is reported as seventy-eight.—*Cincinnati Price-Current*.

A gentleman from California says the wheat acreage in that state is only a five-eighths one for the coming crop, and the yield cannot be more than that whatever the weather may be in the near future. He thinks that within five years from now the Pacific slope will have no wheat to export to Europe. The surplus will all be taken by China, which is just beginning to appreciate the flour sent from San Francisco, and will take more and more each year so long as it is offered at prices which consumers there can afford to pay.

The corn crop of the United States in 1886 was 1,665,000,000 bushels, and in 1887 it was 1,936,000,000 bushels. The immensity of this crop can be realized when it is known that the entire wheat crop of the world is estimated at 2,031,322,285 bushels, or about one-fourth more than our corn crop. Yet the average yield per acre in the United States is only 26 bushels. This crop could therefore be doubled in amount without putting a single extra acre into it, as 52 bushels per acre is not regarded by most good farmers in this state as even a fair crop.

At a meeting of the Cabinet, held at Ottawa, Ont., March 28, it was decided to reduce the rate of tolls on all through freight going east through the St. Lawrence canals from 20 cents to 2 cents per ton. The testimony of Canadian shippers is that while free canals would enable them to far outdistance their American competitors, who use the Erie, this reduction will enable them to hold their own until the canals are enlarged. The reduction does

not apply to freight passing through the Welland canal in American vessels to ports in the United States, but only to through freight to Montreal. An important point as to the right of the Dominion to make this discrimination against American vessels is being raised, as the Washington treaty states that they shall enjoy the same privileges and advantages as Canadian vessels.

The receipts of wheat at New Orleans by the river route since Sept. 1 aggregate 1,700,000 bushels, which is nearly all gain, as the receipts for the corresponding period of 1886 were only 10,957 bushels. Two tow-boats left St. Louis Monday last for New Orleans with a load of 404,000 bushels of wheat. To have shipped this by rail would have required at least 800 freight cars. The New Orleans *Times-Democrat* says the significance of these shipments by the river route is enhanced by the fact that the grain rates from St. Louis to the East have recently been materially reduced.

The Secretary of the Kansas State Board of Agriculture furnishes the following: "Reports received within the last ten days from about 600 correspondents representing every section of the state show rain to be needed, but indicate wheat and rye to be in good condition. The area sown to wheat will fall from 10 to 20 per cent. below the crop of last year, and will no doubt prove the smallest acreage for ten years. The plant is small, but, the winter having been favorable, is found to be in good condition, and with favorable weather from this date will certainly make a good crop. Live stock is in good condition—never better."

An intelligent writer in *Bradstreet's* says that the reason why the Indian corn crop, which is 271,000,000 bushels short of last season, has increased the value of hogs more than of corn, is because in the seven Western States that feed the bulk of the hogs for packing, the Indian corn crop is short this year compared with last year 238,000,000 bushels, or nearly 88 per cent. of the deficiency of the entire crop. About 30 per cent. less Indian corn is in farmers' hands at the West on the first of March than on the same date last year. There were probably 300,000 fewer hogs packed at that date, and there will be from 700,000 to 1,000,000 fewer packed by Oct. 30, as compared with last year. Before midsummer the prices of hog products are likely to be still higher.

Chicago elevators and vessels contained Saturday evening, April 9, 12,900,170 bushels of wheat, 11,674,883 bushels of corn, 1,066,387 bushels of oats, 162,116 bushels of rye and 113,039 bushels of barley; total 25,916,595 bushels of all kinds of grain, against 17,663,227 bushels a year ago. For the same date the secretary of the Chicago Board of Trade states the visible supply of grain in the United States and Canada as 51,916,824 bushels of wheat, 20,135,147 bushels of corn, 4,238,245 bushels of oats, 381,571 bushels of rye and 999,852 bushels of barley. These figures are larger than the corresponding ones a week ago by 330,600 in wheat and 1,329,960 in corn. The visible supply of wheat for the corresponding week a year ago decreased 1,290,255 bushels.

Portland *Oregonian*: Wheat is now higher in San Francisco than in New York—a most unusual state of affairs. In New York it is quoted at 91 to 92 cents per bushel, and in San Francisco at \$1 or a fraction over—a difference of about eight cents per bushel in favor of San Francisco. This has been brought about by San Francisco dealers making a corner and obtaining the control of all the California wheat. The Englishmen who have been selling cargoes of California wheat are now obliged to pay the higher rates in order to fulfill their contracts. This is rough on the Englishmen, but it will put dollars in the pockets of the California speculators, and enable them to put California wheat on a par with Oregon wheat for once. A cargo of Oregon under the natural order of things always brings a little more than a cargo of California wheat.

The reports to the Illinois Department of Agriculture from nearly every township in the state indicate that the area of the growing crop of winter wheat is not quite as large as that harvested last season. The best prospects for winter wheat are reported from the central counties, in which nearly an average (96 per cent.) yield per acre is expected. In the northern counties the condition gives encouragement for 92 per cent. of an average yield per acre. The average condition of wheat in the great wheat belt of the state is such as to give hope for but little over three-fourths of an average yield per acre. The condition of winter wheat in the northern division, while not as

promising in the northern counties as last season at a corresponding date, is better than usual for April 1. There will be less than three-fourths of an average yield per acre of winter wheat in nearly all the southern counties.

Says an exchange: It is but beginning to dawn upon the people of the East that the young state of Nebraska is destined to lead in population and wealth many of her older sisters east of the Missouri and the Mississippi. Those who have been within our borders have become convinced that very soon the state will double its present population, and that the empire now arising on these fertile lands will support a dozen larger cities than Lincoln. Twenty years ago it was problematical whether corn and grain could be grown successfully sixty miles west of the Missouri River. Ten years ago it was believed that the western limit for agriculture was east of the 100th meridian. Now it has been demonstrated that the finest corn, grain and grass on the continent can be produced on almost any part of the vast plain that stretches from the Missouri on the east to the Rocky Mountains on the west.

## THE CONSTRUCTION AND EQUIPMENT OF ELEVATORS.

BY R. JAMES ABERNATHEY, IN "MODERN MILLER."

Having considered the ordinary method of building small elevators with the view of conveniently handling stuff inside the building, it is in order to give a few points on outside handling.

It is a very common thing for grain men to be obliged to crib more or less corn during the season. This is generally done by having long, narrow cribs outside and some distance away from the building. Into these the farmer is obliged to shovel the corn, which, as the cribs fill up, becomes hard and tedious work. When shelling time comes the corn has to be shoveled out of the cribs into wagons and hauled to the elevator. Besides being very hard work, this extra handling increases the cost of the grain to the dealer and cuts down his profits.

A great deal of that extra handling can be saved by attaching a crib to the building running at right angles with length of same. A crib can be so constructed, 25 feet wide and 40 feet long, which can be filled and emptied by machinery as often as desired, requiring a little shoveling while emptying provided it is to be entirely emptied. One end of the crib should run up close to the driveway of the elevator, and outward from it to a distance of about 50 feet. The depth of the crib will depend on the height of the main building, but can, as a rule, be at least 12 feet deep and 25 feet wide. Under the floor in the middle of the crib should be placed, running the whole length of it, a drag-belt, say 9 inches wide. This should run in a square box or trough about 8 inches deep and be driven from the main line of shafting in the basement of elevator. The speed can be about 225 feet per minute. The drag box must be covered over with movable boards while filling up the crib, and when emptying, commencing at the rear end, they should be removed one at a time to allow the corn to roll in on the belt.

Another thing should not be forgotten, and that is, instead of the belt being of poor quality and cheap, it should be the very best made. Good rubber is rather better than leather.

From the sides of the crib the bottom should slightly incline toward the center or the edges of the drag-box. That will make the work of shoveling out the bottom of the crib much easier. The bottom must be tight enough to hold loose corn.

Having constructed the crib, the next thing is to get the corn into it. To do that an independent stand of elevators must be run up between the driveway and the end of the crib. The boot of the elevator must run down below the bottom of the dump-hopper, low enough to allow the ear corn to run into it freely. Not less than 16x7 buckets should be used for the purpose. An elevator building used for that purpose should extend over the driveway or in other words the driveway should run through the building, which should stand endwise to the track and running lengthwise from it. The ear corn elevator would then be inclosed and driven by cross-belt from main elevator shaft.

If but one set of dump rails are used for both the sheller and ear corn elevator, then a division should be made in the dump-hopper, one side running to the sheller and the other side to boot of elevator. The opening into the boot should be well above the center so that the cups will be sure to catch the ears of corn before they drop into the



bottom of the boot, as by dropping they might cause a choke or tear off some of the buckets.

From the head of the elevator, which should be as high as the building will permit, there should run a chute or spout back to the rear end of the crib. The spout should have just pitch or angle enough to allow the corn to move freely and at not too great a speed. Running down from the main spout at proper intervals, should be branch spouts, each with a slide, to be opened or shut as the case may be. By that means the crib, with a little shoveling, can be filled its entire length.

If there be use for it, the holding capacity of the crib can be greatly increased by building the crib on the angle of the main spout.

Such a device as I have just described is somewhat novel, but eminently practical, and would prove of great benefit to most all grain dealers having very much corn to handle. It saves labor, time and money, and the corn can be better taken care of if the kind of crib described is properly constructed.

## THE DEPARTMENT'S MONTHLY REPORT.

The report of the Department of Agriculture for April relates to condition of winter grain and comparative healthfulness of farm animals. The returns show that the condition of the soil at the time of seeding wheat was somewhat unfavorable in the states of the Atlantic and gulf coasts owing to drought during the late summer and autumn, most severe in portions of Pennsylvania, in Maryland and Virginia, and in parts of Texas. The same unfavorable conditions prevailed in Western Missouri and Kansas. The continued dry weather made plowing difficult, seeding late, and in localities where it was unbroken when winter set in germination was slow and the fall growth small. In the great wheat states of the Central West, from Tennessee to Missouri, the seed bed for the greater part of the area was in favorable condition, and, with local exceptions, the plant made good growth before going into winter quarters. On the Pacific slope the early seeding time was dry, but rains came later and the whole breadth was put in fair condition, though somewhat after the usual date.

The covering of snow during the early portion of the winter was better than usual over a large part of the wheat area, but there are from many sections complaints of scanty protection during very trying weather since Feb. 15. The month of March was the most severe for a series of years, the temperature being below the average over the whole wheat area east of the Mississippi River, and alternate freezing and thawing wrought serious damage to bare fields, especially in bottom and poorly-drained lands. Pennsylvania, Virginia and Ohio suffered severely from this inclemency. The general average of conditions is 88, the same as in 1881, and higher than at the same date in 1883 and 1885, when it was 80 and 76 respectively. The April condition of last year was 92.5, which was still further improved by favorable weather during the month. The average for the principal states are: New York, 97; Pennsylvania, 70; Maryland, 82; Virginia, 79; Texas, 79; Tennessee, 94; Kentucky, 92; Ohio, 79; Michigan, 92; Indiana, 90; Illinois, 92; Missouri, 95; Kansas, 88; California, 92, and Oregon, 98.

Damage from the Hessian fly is comparatively unnoticed; its presence is mentioned in from one to four counties in New York, Texas, Tennessee, Ohio, Pennsylvania and Michigan.

Rye has withstood the unfavorable meteorological conditions better than wheat, the average of condition being 92 against 96 at the same date a year ago.

## "CLEAN" BILLS OF LADING.

Some time ago the Chicago Board of Trade entered complaint before the Railroad and Warehouse Commissioners that the railroads running east from Chicago refused to furnish to shippers "clean" bills of lading showing the true and correct weight of grain loaded in cars as required by statute. The commissioners considered the subject March 30 last, and referred it to the Attorney-General, who rendered the following opinion April 9:

SPRINGFIELD, Ill., April 9.—*John I. Renaker, B. F. Marsh and W. T. Johnson, Railroad and Warehouse Commissioners*—DEAR SIRS: I have the honor to receive your communication of the 30th ult. submitting for my examination and consideration a resolution adopted at a meeting of the Chicago Board of Trade, complaining that certain railroad and transportation companies doing business in and carrying grain in bulk from Chicago to other points refuse to give therefor what are termed "clean bills of lading," but claiming that all the bills of lading issued

contain the words "Weights subject to correction," or similar words. The bill also states that the property is carried at "owner's risk of leakage, breakage, chafing, loss in weight," etc., also that owner or consignee shall pay freight "according to the weight ascertained by either carrier." I am of opinion that the bills of lading containing the words of limitation and modification above referred to are not bills of lading or receipts stating the true and correct weight of the grain as required by statute. Those which only state a number of pounds under the words "said to weigh" clearly imply that the company has not correctly weighed the grain as required by law. Those which give the number of pounds under the words "weight subject to correction" imply but little more than the former class, and, instead of giving the amount stated as the correct weight of the grain, they imply that it is not the correct weight, but that it is in the nature of an estimated weight, and the grain is to be weighed in the future to ascertain its correct weight. The shipper is entitled to a receipt or bill of lading stating a specific amount of grain without qualification or modification. The transportation companies giving the kinds of receipts inclosed with your letter and refusing to give a receipt stating the true and correct weight, when the same is demanded, violate the law, and become liable to the penalty named. Sec. 11 of the act establishing the Railroad and Warehouse Commission makes it the duty of the commissioners to examine into the condition and management of railroads so far as pertain to the public and see whether the railroad corporations comply with the law. And whenever it shall come to their knowledge, or they shall believe that the laws have been violated, they shall prosecute or cause to be prosecuted all corporations or persons guilty of such violations. In the cases referred to the Board of Railroad and Warehouse Commissioners may cause suit in the name of the people of the state of Illinois to be instituted before a Justice of the Peace or in the Circuit Court to recover the penalty of \$100 against each transportation company refusing to give a receipt as above specified. And a suit may be maintained against each transportation company upon each consignment of grain carried by it for which it refused to give a receipt as aforesaid.

GEORGE HUNT, Attorney-General.

## CARRYING POWER OF CONVEYORS.

D. K. Clark is authority for the following: A 12-inch screw, having a pitch of 4 inches, turning in a trough with a clearance of  $\frac{1}{4}$ -inch, and revolving with the speed of maximum effect, 60 turns per minute, discharged  $6\frac{1}{2}$  tons of grain per hour, expending .04 horse power per foot run. The sectional area of the grain moved was 49 per cent. of that of the screw. At speed above 60 turns per minute the grain did not advance, but revolved with the screw. An endless band 28 inches wide, traveling about 9 feet per second, delivered 70 tons of grain per hour; power expended, .014 horse power per foot run.

## CHICAGO ELEVATOR CAPACITY.

The nominal grain elevator capacity (regular) of Chicago is 27,000,000 bushels. The actual working capacity is between 24,000,000 and 25,000,000 bushels, probably nearer the inside than the outside figure. Last Saturday the quantity in store in the Chicago warehouses was 21,808,800 bushels, against 19,895,097 on the corresponding date last year, the details being as follows:

	April 4, '87.	April 5, '86.
Wheat.....	12,524,412	15,588,893
Corn.....	7,964,022	3,585,893
Oats.....	1,033,704	496,411
Rye.....	158,953	217,093
Barley.....	127,709	107,638

Total.....21,808,800 19,895,097  
On May 3, 1886, the quantity of grain in store in Chicago was 10,252,051 bushels, a decrease of 7,159,932 bushels.

Capacity for the storage of between 2,000,000 and 3,000,000 bushels in addition to the 27,000,000 bushels capacity might be declared regular within the limits of Cook county and in case of an emergency vessel room can be declared regular under the authority of Section 1 of Rule 21 of the general rules of the Board of Trade:

"The board of directors (of the Board of Trade) shall have power, when in their judgment an emergency exists requiring more storage room than can be supplied by regular elevator warehouses, to declare any storehouses, vessels or places suitable for the storage of grain or flaxseed within the city limits—wherein the cost of delivery to vessels or railroad cars shall not be greater than such as is made by regular elevators for the same service—to be regular places for the storage of grain deliverable under the rules of the Board of Trade."

It will be seen, therefore, that should the emergency arise, the elevators of Duluth and Milwaukee, as well as Detroit and Toledo, might be emptied of wheat and their contents transferred to Chicago and delivered on contracts, even though our elevators be plugged full. Vessel capacity may be said to be sufficient to take care of all the wheat that is by any reasonable possibility liable to be moved out of the lake ports in any one month or part of a month.

The rule above quoted was adopted to provide against the possibility of a "corner in storage room," and such a corner would work incalculable injury to the grain trade of Chicago; the power it confers would, almost beyond question, be exercised should such a course become necessary.—*Daily Business.*

## THE EXCHANGES.

Tickets of membership in the New York Produce Exchange have been selling at \$2,100.

The members of the St. Louis Merchants' Exchange have decided not to abolish trading in "puts and calls."

A recent issue of the *Tribune*, of Stella, Neb., says: "More grain has been handled by our dealers during the past two weeks than has been handled in the same length of time for months." Even the corn gets up little booms in that part of the much-boomed West.

The Directors of the Chicago Board of Trade have entered a protest against the bill now before the Illinois Legislature to prevent trading in futures of grain and provisions, also against the reduction of long time and an advance in the short storage rates of grain.

The Dwight (Ill.) *Star* says that Pontiac is going crazy over its bucket shop, and many a young man will "drop his boodle" before the present pork deal is over. There seems to be work for some evangelist there, or later on for the overseer of the poor, who will be called upon if the boys don't drop out.

*Daily Trade*, of Duluth, says: "There is an active inquiry just now for board of trade memberships. In a comparatively short time they have advanced from \$310 to \$400, and the latter sum is now bid. They are rapidly passing into strong hands, and for the purpose of use and not speculation. A still further advance is sure to come in a comparatively short period, from the influx of new grain firms."

The Directors of the Duluth Board of Trade have taken action on two important rules and referred them to the full board for action. The first of them fixes the minimum commission charges for firms doing business on the board. The object is to prevent the cutting of rates, which has become a somewhat common practice, and which has worked to the injury of a great many firms, and, so it is claimed by some, to the board. The proper charges under the new rules are as follows: First, for receiving and selling wheat, 1 cent a bushel; second, for buying and shipping wheat, ear lots, 1 cent a bushel; third, for buying and shipping wheat, cargo lots,  $\frac{1}{2}$  cent a bushel; fourth, for buying warehouse receipts and delivering them under a sale of futures,  $\frac{1}{2}$  cent a bushel; fifth, for receiving and selling oats,  $\frac{1}{2}$  cent a bushel; sixth, for buying and selling futures,  $\frac{1}{2}$  cent a bushel; seventh, provided that a rebate of one-half the commission may be made to members of the board. The rules are to take effect Aug. 1. The object of the last rule is to encourage shippers and operators on other boards to become members of the Duluth board. A country shipper may be able to save one-half his commission charges if he will become a member of the board.

The Peoria *Daily Transcript* says: "The chief commercial body in the city is the Board of Trade, which is located in the Chamber of Commerce, situated on the corner of Washington and Harrison streets. This building is owned by a stock company, of which the Board of Trade holds the controlling interest. It was finished in 1875, at a cost of \$95,000. It is four stories high, surmounted with a tower containing a clock. The first two floors are leased as offices, the second and third are used for the daily sessions of the Board of Trade and as offices by the various employees of the Board. The main hall is 104 feet long, 61 feet wide, and 35 feet high, and handsomely frescoed. The building is heated by steam. A passenger elevator conveys the members to the various stories. The organization of the Board does not differ materially from those in other cities. A system of grading and weighing, under the charge of competent officials, is maintained, and committees appointed by the board of directors look after the various matters that tend to advance the interests of the members. The figures given hereafter will show the volume of business transacted during the past year. One feature connected with the Board of Trade deserves special notice, and that is the absence of speculative trading in options. The transactions here are in the actual grain. A delivery and acceptance is not merely 'contemplated,' as stated so conspicuously on the blanks used for trading purposes in many grain centers, but which the initiated know to be a mere cover to avoid legal complications. Here the actual commodity passes from hand to hand, and as a consequence the business is done on a safe basis and is free from those risks that must be taken in those markets where so large a proportion of the trading is purely speculative. In order to handle large quantities of grain, ample elevator facilities are required. Of these Peoria has the following public warehouses:

	Capacity, bushels.
Union Elevator, No. 1.....	1,000,000
Union Elevator, No. 2.....	350,000
Iowa Elevator.....	350,000
P. & P. U. Ry. Elevator "A".....	350,000
Central City Elevator.....	250,000
Advance.....	200,000

Total.....2,500,000

"In addition there are private warehouses with a storage capacity of 200,000 bushels, making a grand total of 2,700,000 bushels."



# THE AMERICAN ELEVATOR AND GRAIN TRADE.

—PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY—

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**A. J. MITCHELL,** - - - Business Manager.  
**HARLEY B. MITCHELL,** - - - Editor.

## ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

## CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., APRIL 15, 1887.

## EXPORTS OF BREADSTUFFS.

The report of the Bureau of Statistics on the exports of breadstuffs issued April 11, for the month of March, shows an increase for rye and wheat and a decrease for oats and corn, in comparison with the same month for the previous year. The total value of breadstuffs exported during March, 1887, was \$14,998,668, against \$11,137,610 for March, 1886. The value of the exports for the nine months ending March 31, 1887, was \$119,669,121, while that of the nine months ending March 31, 1886, was \$83,598,895, a very perceptible increase.

The exports of corn for March, 1887, were 5,352,130 bushels, and for that month in 1886 they were 8,031,481 bushels. The record for oats stands at 25,683 bushels in 1887, against 45,508 bushels in 1886. The number of bushels of rye exported was 61,470 in 1887, against 16,743 in 1886. Wheat stands at 7,722,788 bushels in 1887, against 5,198,746 bushels in 1886.

## STATE INSPECTION OF GRAIN.

There is no mistaking the temper of a large number of the grain receivers of Chicago. They are disgusted with state inspection and want that inspection handed over to the Board of Trade. It must be admitted that they have pretty good grounds for dissatisfaction. The grain receivers of this city represent the actual grain interests of Chicago; and their voice, rather than that of the speculative houses, is entitled to be heard and heeded.

And first of all, most of the grain men of the city have no objection to state inspection (indeed most of them prefer it) if only the office of chief inspector be divorced from politics. For instance, an arrangement by which the governor should appoint the inspector from a list of names presented by the grain men would be eminently satisfactory to all concerned, and is one which the governor himself ought to make. Many executive officers have limited themselves in this way voluntarily, and the executive of Illinois should do the same. He should at least heed the wishes of those who have the real commercial interests of the city at heart. As it is now, the office of chief grain inspector is a political one. It is true that the former chief inspector, Mr. Drake, was a politician; but that he was a thoroughly efficient officer and acceptable to the grain

men has never been denied. State inspection might be made even preferable to inspection by the Board of Trade; but existing methods and practices, particularly in appointments, must be abolished before that is possible.

## THE NEW YORK CANALS.

On March 22 the Daly Canal Improvement Bill, appropriating \$550,000 for necessary improvements on the New York canals, passed the assembly by a vote of 84 to 37. Gov. Hill allowed it to become law without his signature, evidently preferring not to take sides with either party concerned in the bill.

When we consider what interests were opposed to the bill, the vote in the assembly may well be regarded as a great victory. For it must be remembered that not only are the great railroad corporations of the state opposed to the maintenance of the canals, but a large section of the rural population as well. If the vote is any criterion, the people of New York state are in no mood to abandon their waterways to their hereditary enemies.

## THOSE "BILLS OF LADING."

And now it appears from the decision of Attorney General Hunt, of this state, quoted on another page, that the bits of paper which time out of mind the railroads have been giving shippers, "at owner's risk," "more or less" and "subject to correction," are not bills of lading or receipts at all, viewed according to the railroad and warehouse law of 1871. Moreover, the attorney general states that according to law, the railroads are required to erect scales at every station where over 50,000 bushels of grain have been shipped the preceding year; and that the State Board of Railroad and Warehouse Commissioners may cause suit to be brought to recover \$100 for each case where a railroad company refuses a proper bill of lading.

As we have pointed out before, this is the only possible construction that can be placed upon the law. The law contemplates that the railroads shall give a full and sufficient bill of lading for goods received; and presupposes that the roads have sufficient gumption to know what they receive, and that they are not so far above all human laws and human justice but what they shall be responsible for what they receive from the shipper, without any foolishness about "more or less," or "at owner's risk."

## STATE ELEVATORS.

For seventeen years, or since "before the fire," in Chicago phrase, the boatmen on the Erie Canal have made a strenuous and continuous effort to have the charges for transferring grain at Buffalo and New York reduced to something within reason. In all this period every piece of legislation designed to secure this end has been defeated, and the elevator men have been deaf to all petitions, memorials and prayers which the boatmen have addressed them. At last, in desperation, they have attempted to get a bill through the legislature authorizing the construction and maintenance of six floating elevators—two at Buffalo and four at New York—to be owned and operated by the state.

Of course, from an American view of the functions of government, this is an extreme measure. We all recognize the bad policy of government attempting to enter the domain of private business. But, to borrow the language of "Ruddy-gore," "What in the world is that little man to do?" The elevator ring at Buffalo has time and again bought off all competition until now Buffalo has three times as many elevators as she has any need of. Most of them are locked up; but the grain trade pays dividends on these idle elevators, just the same. In fact, there appears to be no redress except an extreme measure. The elevators take \$144 for transferring 240 tons of wheat by steam power, while nearly the same amount of gravel, for instance, can be transferred by horse power for \$28. Evidently there is some-

thing wrong about this. The state of New York has spent millions of dollars to secure her commercial supremacy. She ought not to hesitate to spend a few hundred thousand to release traffic from the onerous load which the elevator rings have fastened upon it. New York must remember that Montreal continually looms up in the distance.

## THE WORKING OF THE NEW LAW.

The Inter-State Commerce law has not been in operation two weeks, but nevertheless the newspapers teem with statements that it has already proved a failure. It is true that these statements come mostly from those who were the enemies of the bill. As for the roads themselves, some of them have evidently attempted to make the law as onerous and as odious as possible. It is yet too early to state for certain what the actual workings of the law will be. It must be remembered that the able Commission, with Judge Cooley at its head, has full authority to suspend at its discretion the "long and short haul clause" (where the shoe is alleged to pinch) where it shall appear necessary to do so. It must not be forgotten that the law aims at justice; and it appears to us that with large discretionary powers lodged in the Commission substantial justice is pretty likely to be obtained.

## MAY WHEAT AND THE BLOCKADE.

The manipulation of the May wheat option in this city has created a fear that there may be a shortage of elevator room and a consequent blockade of wheat when the time arrives to deliver the vast quantity of wheat sold in this market. Just who is at the bottom of the deal nobody seems to know. In some quarters it is claimed that Bonanza Mackay and several other California parties are at the head of it. Then there are others who claim that Armour is the man who is engineering matters. These are the same people who seem haunted by the idea that Armour is at the bottom of all deals. Then again a Cincinnati syndicate is credited with being up to the chin in May wheat.

Whoever is engineering matters certainly has plenty of money at command. The amount of wheat sold in this market is variously estimated at from fifteen to forty million bushels. About all the wheat in store at this point is held by the manipulators, whoever they are, and the lack of storage room is being felt. One small elevator has been declared "regular," and several others will doubtless be declared regular next week. To constitute "delivery," the wheat must not only be in the city but must be stored in a "regular" warehouse. It is possible that the plan of the syndicate includes cornering the elevator room in the city. It is a mysterious deal all around.

THE Lake insurance pool has decided to retain its present headquarters in Buffalo. Three new companies were admitted—the Boston Marine, the Manhattan, and the Anglo-Nevada. The prospect was considered excellent for a heavy season's business on the lakes.

THE New York Produce Exchange is kicking over the proposed legislation in regard to grading and inspection in the Empire state. The proposed bill provides that no person shall act as an inspector-in-chief, deputy or other inspector for any board of trade or produce exchange within the state who has not first qualified, and no such inspector can be a member of any board of trade or produce exchange, or be interested in any transactions carried on in those organizations, without being liable to fine and imprisonment. Such inspector must give bond, etc., in the sum of \$50,000 that he will faithfully discharge his duties, and that he will pay all loss or damage caused by reason of his neglect, refusal or failure to perform his duties. The bill also provides that no board of trade, etc., shall modify or change any such standard grade of any grain oftener than once in six months, except after thirty days' notice.



## Editorial Mention.

IN Russia the grain trade is very largely in the hands of the Jews.

BOATMEN on the Illinois & Michigan Canal are busier than they have been in years. Canals, it seems, have not outlived their usefulness.

THE anti-bucket-shop bill has been rescued from an untimely grave in the Pennsylvania legislature and reinstated on the calendar.

A NUMBER of suits have been commenced in the courts of this city by fleeced customers to compel the bucket-shop proprietors to disgorge.

THE Duluth Board of Trade voted against the proposed change in the price of membership and the proposed commission rule quoted elsewhere.

J. B. M. KEHLOR will build a 500,000-bushel elevator at Litchfield, Ill. This will give that thriving town a storage capacity of a million bushels.

A RECENT communication from J. H. Forney & Co., Baltimore, Md., says: "Your journal comes to us anxiously waited for, and we think that dollar well invested."

ATTENTION is directed to the advertisement of the Standard Iron Co., of Bridgeport, Ohio, who are extensive manufacturers of roofing, siding and similar classes of goods.

WHEAT prices in California have been run up to such a point that export has been stopped, and many of the millers are getting wheat in Nebraska, a hitherto unheard-of movement.

It is said that the boom which the Inter-State Commerce Bill has given to the canals in New York is also being felt on the Ohio canals, where the boatmen have all they can do.

WE have the information on good authority that elevators are to be built at Buenos Ayres, South America, on the model of American elevators, to encourage the export trade in wheat.

IN San Francisco Mr. Wm. Dresbach, president of the Produce Exchange, is credited with engineering the corner on wheat. He is said to be backed by Bonanza Mackay and the Nevada Bank.

A BILL has been introduced in the legislature at Springfield to take the appointment of chief grain inspector out of the hands of the governor and place it in the hands of the Chicago Board of Trade.

IN the three States of Indiana, Illinois and Ohio the acreage of winter wheat is said to be 93, 93 and 98 per cent., respectively, of an average crop, and the condition 83, 84 and 85 per cent., respectively.

ACCORDING to tables published in *The Chronicle*, in the past three years the insurance loss on grain warehouses and elevators has been \$2,493,366, while the uninsured loss in the same time has been \$1,500,952.

IN Russia the government seems about to take a hand in the grain trade; and it is proposed that the state lend money on consignments of grain to the extent of 60 per cent. of its value. The state will further agree to refund to railroads money advanced when receipts are deposited.

One per cent. commission is to be allowed railroads to cover special costs of handling. Grain not disposed of after a stated period is to be sold at auction. The responsibility for loss resulting must be borne by the railroads. This system of state aid is expected to encourage the railways to handle grain.

NOBODY will be sorry to hear that Russell Sage figured on the losing side of a lawsuit in New York the other day. The suit was nine years old, and grew out of one of his "put and call" transactions, Sage having backed out of his agreement.

ELEVATOR men will not overlook the advertisement of the Paige Manufacturing Co., the agency of which is held by Mr. G. W. Crane, 242 Fourth avenue South, Minneapolis. Mr. Crane handles almost everything that is used in elevators, and will be pleased to correspond with all who contemplate changes, additions or improvements in their houses.

WE are glad to see that interest in the Sault Ste. Marie Canal is not abating. No public improvement is of more vital interest to the producers and consumers of the West and East. The Lake Carriers' Association have decided to send delegates to the convention that meets there next July.

THE talk in England about national granaries to meet the possible emergencies of war seems to be mainly—talk. It has been shown that such granaries would have to have a capacity of 80,000,000 bushels to be effective, and then wheat is not the only article of food which Great Britain draws from abroad.

THE controversy between the Chicago Board of Trade and the Chamber of Commerce Co. over the lease of the Chamber of Commerce has been settled by the Board of Trade paying \$87,500 in cash and surrendering 1,050 shares of Chamber of Commerce stock; in return the company cancels the lease.

THE "Grain Dealers' Ready Reckoner" advertised on another page is well worth the attention of elevator men, millers and grain handlers generally. A work of this kind is a convenience compared with which the price of the work is insignificant. The purpose and scope of the book are given in the advertisement.

GOV. MARTIN, of Kansas, surprised a good many people by a "pocket veto" of the Riddle Bucket Shop bill, which passed both branches of the Kansas legislature by very large majorities. The veto of the Governor was unforeseen, as it was generally supposed that he was in entire sympathy with the proposed legislation.

THE Chicago Board of Trade was incorporated in 1859. A bill has been introduced in the Legislature, by Senator Garrity, repealing the law incorporating it. Perhaps this is the bucket-shop method of revenge. Nothing will come of it, however, and the Board does not seem at all anxious whether the bill passes or not. It probably will not.

THE BOSTON BELTING COMPANY has just completed and shipped to the Pennsylvania Railroad, for its new grain elevator at Philadelphia, a rubber belt 850 feet long, 36 inches wide, five-ply, which weighs about three tons. The company has also recently belted three large elevators at Buffalo, N. Y., two at Duluth, Minn., and has three large contracts now on hand.

NOT a little disappointment was created in Chicago by the failure of Gov. Oglesby to appoint one member of the Board of Railroad and Warehouse Commissioners from Chicago or Cook county. The new board consists of John J. Rinaker and B. F. Marsh, who succeed themselves, and Jason Rogers, of Decatur, who succeeds W. T. Johnson, of Chicago. As it is now, all the members of the board

live in Central or Southern Illinois. Even if Chicago is not given representation on the board, the northern part of the state should be given representation. For the next two years, for the first time since the Railroad and Warehouse law went into effect, Chicago will be without representation on the board. Chicago is the center of the railroad and warehouse business, and ought to have a resident Commissioner.

THE FROST MFG. Co., Galesburg, Ill., report sales for March as being double what they have ever had in the same month any previous year. Inquiries and orders for elevator machinery are much more numerous than usual at this season of the year, and coming from a wider range of territory. They think prospects are bright for a trade largely in excess of last year, though that was the best they have ever enjoyed.

ELSEWHERE we present some points, illustrated, relative to the placing of grain-cleaning machinery, which, no doubt, many of our readers will find serviceable. The matter is from advance sheets of a "Treatise on Grain-Cleaning" shortly to be issued by Messrs Howes & Ewell, manufacturers of the well-known "Eureka" grain-cleaning machinery at Silver Creek, N. Y. Attention is directed to their proposal on our first cover page.

THE Chicago Freight Bureau has indited a ringing protest to the Inter-State Commerce Commission against the suspension of the long and short haul provision of the bill. Of late no city has suffered as much from unjust discrimination as Chicago, and no city is more eager for the operation of an equitable rule in railway matters. Chicago has nothing to lose and a good deal to gain by an equitable railway law.

THE Charter Gas Engine, which was fully described in our columns a few months ago, is advertised on another page, and those wishing a cheap power for purposes where a light power is desired will do well to read the advertisement of the manufacturers, the Williams & Orton Mfg. Co., 400 Locust street, Sterling, Ill. This engine is ignited by electricity, a feature which is no experiment and which has been thoroughly tried and proved eminently satisfactory.

THE history of the bill which the Governor of Wisconsin has just vetoed is curious. The bill was originally drawn up by the Milwaukee Chamber of Commerce, and was aimed at the bucket shops. However, in some way the bucket shops managed to get in their work on the bill and amended it so as to cover transactions in the Chamber of Commerce as well as in the bucket shops. In this shape it passed, but the Governor had the good sense to veto it.

THE President appointed as commissioners under the Inter-State Law: Judge Thomas M. Cooley, of Michigan; ex-Congressman William R. Morrison, of Illinois; Augustus Schoonmaker, formerly Attorney-General of New York state; Colonel Aldace F. Walker, of Vermont, and Walter L. Bragg, of Alabama, who has been chairman of the Board of Railway Commissioners of that state. Judge Cooley's appointment is a conspicuously excellent one.

THE Grant County (Minn.) Farmers' Alliance, at a recent meeting, demanded that the Railroad Commissioners make the following rates: That the freight rates for grain be fixed on a basis, first, one cent per 100 pounds arbitrary; second, one mill per 100 pounds additional for each mile of haul for any distance not exceeding fifty miles; third, three-fourths of one mill per 100 pounds for each mile of haul over fifty and not exceeding 100 miles; fourth, one-half of one mill per 100 pounds for each mile for any distance over 100 miles and not exceeding 200 miles; fifth, one-fourth of one mill per 100 pounds for each mile of any distance over 200 miles.



## STOPPING TRADING IN GRAIN FUTURES.

The bill introduced into the Illinois senate by Mr. Foran "to prevent gambling in grain, provisions or other farm products" is a curious document. It provides, in effect, that no one shall be permitted to buy or sell for future delivery any kind of farm produce unless he be a farmer. All other parties who buy or sell grain or provisions can only do so by instantaneous transfer of the paper which certifies to ownership of the property so bought or sold, or a written contract with the producer of the same that it will be delivered in due time. To insure against evasion of the law it is provided that it shall be the duty of every party making such a sale to furnish a written statement containing the names of the parties from whom the property was bought, etc., and to keep the same, with a record of the party to whom it was sold, in a book which shall at all times be open to inspection by the Judges, the State's Attorney or the foreman of any grand jury that may desire to examine such record. A failure to comply with these terms, or the permitting of a violation of the law upon the premises controlled by any owner or agent, is to be visited by a heavy penalty, it being stated to be "the intention of this act to prevent, punish and prohibit in this state all gambling transactions in grain, provisions or other farm produce, no matter where conducted in this state."

The fact that the penalties in this bill are not to apply to sales by farmers of grain or other produce sold by them either for immediate or future delivery sufficiently exposes its absurdity. By allowing one section of the community to do what is unlawful for others even to attempt to do it is self-branded as unconstitutional. But supposing such a law could be enforced, the result would be most disastrous, and that to the very class it is professedly intended to benefit and protect. Such a law would bring back the "good old times" when wheat sold at 50 cents per bushel so long as any but an insignificant quantity remained in the hands of the producer, and was then liable to advance to three times as much when bought for consumption. And there would be strict justice in an important difference between these two sets of prices, as well as good warrant for it. So long as the farmer is not enough of a capitalist to be able to carry his own crop through a considerable part of the year he must either borrow from some one who has the money to spare or sell to an intermediate buyer. In the absence of the latter he would have to pay usurious rates to the former, which would probably prove a much greater burden than any that he is called upon to bear now. The intermediate, or "middle-man," is at present willing to operate on a comparatively small profit because he knows that on a speculative market he can always sell his risk to another man whenever conditions seem to make that desirable. If he were obliged to stand the chances of a decline through several months of holding the property he would not assume the risk without an equally large margin of possible profit, and the more the speculative market is repressed by legislation the greater is the gulf of possible loss that stares in the face of the middle-man who undertakes to tide over the produce of the farm between the producer and the consumer. It is a point that should never be forgotten in this discussion that before the war wheat sold in this city at 50 and 60 cents per bushel, and there were then no reaping machines or other of the modern appliances for cheapening the cost of production. The railroad and the steamship have done a great deal in lessening the difference between the cost on the farm and in the places where the food is eaten; but the existence of a speculative market has contributed to the same result in no small degree. Abolish that, and we do a great deal toward bringing back the price conditions of a quarter of a century ago, when the farmer always obtained but a shade above starvation prices, simply because he was every time at the mercy of the buyer.

It should be observed, however, that the preceding remarks do not apply to bucket shops. The so-called trading in those institutions does not help one iota in the carrying of the produce of the farmer between the time that it is ready for market and that at which it is actually wanted by the ultimate consumer. An effective bill to repress the bucket shop would be a very good thing. A law to prevent the speculation which helps to hold the produce of the farm on the line between the two classes spoken of would be a very bad one. The latter kind of trading may be designated as gambling, and in part may be so, but to suppress it in the hope of benefiting the farmer would be like "cutting off the nose to spite the face."—*The Tribune*.

The development of the Northwest has made the Sault Ste. Marie Canal, through which all vessels entering and leaving Lake Superior must pass, a waterway of vast importance. Its improvement is equally as important to the East as to the West. Gen. O. M. Poe, the government engineer in charge of the canal, has submitted a report which is a most conclusive argument for the enlargement of the passage sufficiently to permit vessels of first-class size to go through it with full cargo. His statistics are highly interesting. They show an increase of 39 per cent. in the tonnage of vessels and in the bulk of freight passing through the canal in 1886 over the totals of 1885. In 1886 the number of vessels locked through was 7,424 as against 5,880 in 1885, the registered tonnage for the two years being 4,219,397 and 3,035,937. More than a million tons of coal passed westward through the "Soo" Canal in 1886, as against less than nine hundred thousand in 1885. There was shipped out a total of 19,706,858 bushels of grain, the amount for 1885 being 15,697,194.

## ELEVATOR AND GRAIN NEWS

A board of trade has been organized at Norton, Kan.

J. S. Lucas, grain dealer at Churchill, Ontario, has sold out.

Isaac H. Crie, grain dealer at Malden, Mass., has sold out.

J. H. Hathorn has sold out his grain business at Riley, Ind.

G. B. McLean, grain dealer at South Byron, Wis., has sold out.

E. E. Henderson, grain dealer at New Rockford, Dak., has sold out.

W. N. Fremon, grain commissioner of Denver, Col., has sold out.

The Enterprise distillery, of Pekin, Ill., will start up about May 1.

White & Co., grain commissioners at Cincinnati, Ohio, have sold out.

Smith & Fuller, of Clarkson, Neb., will erect a new grain elevator.

A small distillery has been started at Lineboro, Md., by Adam Rohrback.

Hollis & Brown, dealers in grain at Dakota, Iowa, have dissolved partnership.

W. F. Meader & Co., grain dealers at Minneapolis, Minn., have assigned.

Peck & Woolcraft, grain commissioners at Cincinnati, Ohio, have dissolved.

Aller & Benedict, grain dealers at Denver, Col., have gone out of business.

L. B. Willard, grain dealer at Greeley, Col., has sold out to John D. Douglas.

Dowson & Ellison, grain dealers at Chapman, Kan., have dissolved partnership.

The Spellman Great Eastern Distillery, at Peoria, Ill., will shortly be in operation.

Jackson & Son are successors to Jackson & Co. in the grain business at Denver, Col.

W. H. Cook & Co. are successors to Hill, Ewing & Co., grain brokers at St. Louis, Mo.

The grain elevator firm of Gallentine, Walcott & Co., at Nashville, Mich., has dissolved.

F. F. Farrell & Son, dealers in grain at Hampshire, Ill., have dissolved partnership.

Henry Werner, of Baltimore, Md., will put two new 125-H. P. boilers in his brewery.

A grain, malt and hop section has been formed by the Board of Trade of Toronto, Can.

A new grain elevator is one of the several contemplated improvements at McKinney, Tex.

Barnes, Craig & Shannon, grain dealers at Plymouth, Mass., have dissolved partnership.

R. J. Woods & Co., dealers in grain at Memphis, Tenn., have dissolved partnership.

A new board of trade has been organized at Emporia, Kan. The membership fee is \$100.

Smith & Turner are successors to Chas. H. Smith in the grain business at Idaho Springs, Col.

Mr. H. H. Dorsey, of Wahoo, Neb., writes us that he is closing out his elevator business there.

H. W. Ocker has retired from the grain commission firm of Lemcke & Co., at St. Louis, Mo.

A. F. Jackson & Co. have succeeded J. D. Sommers & Co. in the grain business at Chicago, Ill.

The Metropolitan Grain and Stock Exchange, of Chicago, Ill., have surrendered their charter.

The largest distillery in Iowa will close May 1, its capacity having been sold to the whisky pool.

The Seattle Flouring Mill and Elevator Co., Seattle, Wash. Ter., has filed articles of incorporation.

Edward Jordan has retired from the flour and grain firm of Chas. R. Ireland & Co., at Bangor, Me.

James L. Carhart is successor to J. L. & D. C. Carhart, dealers in grain, flour, etc., at Philadelphia, Pa.

Streblov & Co. (Company nominal), brewers of Plymouth, Wis., have assigned to Marvin Gilman.

John G. Roach, of Uniontown, Ky., will rebuild his distillery lately burned, entailing a loss of \$25,000.

Messrs. Haynes, Gordon & Co., of Chenoa, Ill., have recently fitted up their new grain office in fine style.

J. R. Wood & Co., grain commissioners at Memphis, Tenn., have been succeeded by Farabee, Hunter & Co.

Dorset & Wolfstange, of Covington, Ky., will rebuild their distillery recently burned, causing a loss of \$75,000.

The Omaha Elevator at Washburn, Wis., has a capacity of 900,000 bushels, and cost a quarter of a million dollars.

The elevator at Council Bluffs, Iowa, handled 800 cars of grain during one week in March, and during the previ-

ous seven months the proprietors have handled more grain than for twelve months preceding that time.

S. Wilson & Son, grain dealers at Wapello, Ill., received at their elevator 215 loads of corn on Tuesday, April 5.

C. H. Rieger has sold his elevator at Lakeville, Minn., to A. A. Freeman & Co., of La Crosse, Wis., for \$2,500.

There are over 300,000 bushels of oats cribbed in Farmer City, Ill., about 150,000 bushels of grain, the rest in corn.

Killion & Carlisle have commenced work on their new elevator at Downs, Ill. They will soon be ready for business.

The distillery of the New Orleans Pinewood Distilling Co., at New Orleans, La., recently burned, is being rebuilt on a larger scale.

The capital stock for another starch mill at Ottumwa, Iowa, has been subscribed, and the company is looking for a suitable site.

It is rumored that a new elevator to cost \$150,000 will soon be erected at St. Louis, Mo., for the commission firm of Schwartz & Bro.

The Bridgeport Brewing Co., Bridgeport, Conn., will build a large brewery at Houston, Tex. Work will be commenced at once.

The elevator and grain firm of Treleven & Chandler, at Fond du Lac, Wis., has dissolved. D. D. Treleven will continue the business.

The new Canadian retaliatory bill imposes a duty of 40 per cent. on breadstuffs, flour and ground grain imported from the United States.

Dixon & Shuping are successors to Dixon & Houck in the grain business at Witt, Ill., so a recent communication from the new firm tells us.

The Downey Elevator Company has consolidated with the Kearney Milling and Elevator Company, at Kearney, Neb., so a recent letter informs us.

Parties at Normal, Ill., are talking of establishing a grain elevator at that point. In former times a heavy grain business was carried on there.

A number of compress and grain elevator companies have been organized at Gainesville, Tex., and will be in running order for the coming season.

The Duluth Elevator Company, of Duluth, Minn., has amended its articles of incorporation by increasing the capital stock from \$600,000 to \$900,000.

Kamm & Schillinger, brewers at Mishawaka, Ind., have incorporated under the name of the Kamm & Schillinger Brewing Co., with a paid in capital of \$65,000.

The Kramer Commission Company has been incorporated at Chicago, with a capital stock of \$25,000. Incorporators, Wm. Kramer, Clark B. Samson and Wm. Law, Jr.

The grain commission firm of L. D. Ross & Co., of Detroit, Mich., has dissolved, H. N. Smith having withdrawn. L. D. Ross will continue the business under the old name.

The railroad and warehouse commissioners of St. Paul, Minn., decide that a railroad company cannot refuse to transport grain because of the business methods of the shipper.

A \$25,000 stock company has been organized at Gainesville, Tex., to build a grain elevator, with J. B. Wells, F. M. Renfro, John T. Walker, C. C. Heming, and others, as directors.

H. E. Vanderver, Davenport, Neb., has just put in a Kaestner Feed Mill with necessary pulleys, shafting and belting, the whole outfit being furnished by the Frost Mfg. Co., Galesburg, Ill.

One Indianapolis, Ind., grain firm last year shipped 4,000 car loads of grain for export via Boston; now they are unable to get a rate by which they can forward export business without loss.

The four grain elevators of Atchison, Kan., handle annually over \$6,000,000 worth of grain. In 1882 they handled 7,485,245 bushels; in 1883, 10,913,451 bushels, and in 1884, 12,789,262 bushels.

Norcross & Worl, Adams, Neb., have just started up a new 15-horse power engine and 20-horse power boiler in their elevator, the whole outfit having been bought from the Frost Mfg. Co., Galesburg, Ill.

The Milwaukee & St. Paul has issued its special tariff on wheat, flour, flax seed, coarse grains and millstuffs, in car load lots, between Chicago, Milwaukee, Racine and points in Iowa, Minnesota and Dakota.

The Gainesville Elevator Company has recently been reorganized, at Gainesville, Tex., with a capital stock of \$25,000. Their purpose is to erect an elevator. J. B. Wells, F. M. Renfro and others are interested.

M. Wollstein, of Kansas City, Mo., has purchased a large building of W. M. Dillon, at Nebraska City, Neb., for \$8,000, and will establish a large distillery and rectifying house at that point for the North and Northwest.

It is estimated that about 5,000,000 bushels of wheat, spring and winter together, have been bought in Western markets, principally in Toledo, Detroit and Duluth. They are now awaiting shipment via water to the New York market. This in a great measure accounts for the easy position of May wheat.

The Bauernschmidt & Marr Brewing Co., capital stock \$100,000, has been incorporated at Baltimore, Md., by John Marr, Albert Gottschalk, Lewis Becker, Andrew Roth and Isidor Lowenthal. The company has purchased



and will operate the brewery formerly opened by John Marr and Elizabeth Bauernschmidt.

Geo. W. Ehle, grain dealer at Minneapolis, Minn., made an assignment March 28, for the benefit of his creditors, to Charles M. Amsden. This assignment follows an attachment of property in a suit brought by J. S. Pillsbury.

The Omaha Railroad Company is erecting grain elevators at Duluth, Minn., with a total capacity of 9,000,000 bushels. Mr. M. Smith, general agent of the company, says they will be ready in a few days for 2,000,000 bushels.

W. L. Hayes has built an elevator at Gilead, Neb., on the Nebraska extension of the Chicago, Rock Island & Pacific R. R., and has bought his entire outfit of engine, boiler, pulleys, shafting, etc., from the Frost Mfg. Co., of Galesburg, Ill.

The improvements to the Indianapolis (Ind.) Starch Works, which have been in progress some weeks, are nearing completion, and the works will start up full-handed this week. They will use from 2,800 to 3,000 bushels of corn daily.

The Farmers' Union, of Oakland, Neb., has recently been paying three cents more for oats and one cent more per bushel for corn than other grain dealers at that point. This is done with a view to wiping out the existing monopolies in the grain business.

A starch mill is now in course of erection at Nebraska City, Neb., which is 70x70 feet, three stories high, with engine-house, etc. Mr. Fred Beyschlag, the proprietor, will manufacture starch, oatmeal and hominy. Employment will be given to sixty men.

The Anheuser-Busch Brewing Company, of St. Louis, Mo., propose to erect four fine buildings for office and warehouse purposes, to cost \$110,000, at Omaha, Neb. The company will make that city the central headquarters for their Western trade.

L. Harvey, W. C. Fields and others, of Kinston, N. C., are interested in establishing a starch factory in their city. They would like to correspond with parties having machinery for making starch, also some reliable man who understands the business and would take charge of the factory.

Mr. Frederick E. Roberts, late of Messrs. C. R. Hickox & Co. and Mr. Herbert W. Cowing, late with Messrs. David Dows & Co., have formed a copartnership under the firm name of Cowing & Roberts, for the purpose of carrying on the flour commission business at 416 Produce Exchange, New York City.

A joint stock grain company is to be organized under the state law by some of the farmers in the vicinity of Sheldon, Ill. It is proposed to handle the grain of members at a certain fixed amount per bushel, and to buy of others in the usual way. The movement is the result of dissatisfaction with the local dealers for identifying themselves with the Grain Dealers' Association, an organization which it is claimed is antagonistic to the farmer's interest.

The prophecy is made by one of the heavy local dealers in King Corn at Beatrice, Neb., that within three months corn will be ten to fifteen cents higher than at the present time. He bases his calculations principally on the fact that the crop last year was short, that when harvested it was almost dry enough for shipment, and farmers taking advantage of the recent advance, caused by a decline in railroad rates, have shipped far more than they could easily spare.

Dr. James A. James, of Mankato, has been appointed chief grain inspector for the State of Minnesota. Dr. James has been for the last two years the chief deputy grain inspector, with headquarters at St. Paul. During this time he has been called upon largely to visit the country elevators throughout the state. He has also been a grain dealer in Mankato. He was elected to the state legislature in 1878, and has been a quite prominent figure in the politics of Southern Minnesota.

The First National Bank of Minneapolis, Minn., recently brought suit against W. F. Meader, L. D'Absalom, A. T. Poehler, H. Poehler and Thomas Welch, composing the Pacific Elevator Company, to recover 85,000 bushels of wheat and \$5,000 damages, or, if the wheat could not be turned over, \$63,000 in money. It is alleged that \$50,000 was advanced to the defendants between the 24th and the 29th of November, 1886, to be used by them in purchasing wheat. As security warehouse receipts of the wheat were given the plaintiffs.

A grain exchange is talked of for Omaha, Neb., but the *Daily Bee* of that city says: "Before such a scheme can be made feasible Omaha must become a grain market, and she never will be a grain market until she has a number of large mills and elevators to compete in the purchase of grain. A bucket-shop grain exchange with the grain lying in Chicago or New York can be opened at any time, but gambling in grain options does not mean a grain market. A grain exchange before we have grain buyers and grain consumers, would be putting the cart before the horse."

Among recent orders for elevator supplies, the Frost Mfg. Co., of Galesburg, Ill., report the following: John Karr, Lochiel, Ind.; Gregg & Kyser, Lincoln, Neb.; J. S. Sexton, Viola, Ill.; J. M. Sewell & Co., Juniata, Neb.; Ketcham Bros., Marengo, Iowa; Neal Bros., Edgar, Neb.; R. J. Silliman, Holstein, Iowa; Dorsey, Swanson & Co., Ceresco, Neb.; Moses Edwards, Albia, Iowa; Edson Gregg, St. Joseph, Mo.; A. S. McKay, Friend, Neb.; D. N. Dunlap, Fontanelle, Iowa; Lowrey Bros. & Mulfinger, Seward, Neb.; Hancock & Co., Avoca, Iowa; James Bell, David City, Neb.; F. Ehrke, Hanover, Kan.; Gray, Babcock & Sears, Odebolt, Iowa; Taylor & Burke, Ohio, Neb.; A. G. Scott & Son, Kearney, Neb.; Mason Gregg, Ohio, Neb.; Bragg & Cook, Waverly, Neb.; H. Burgess, Hebron, Neb., and Schofield & Taylor, Waverly, Neb.

The Frost Mfg. Co., Galesburg, Ill., report the sale of complete elevator outfits to Thos. Cochrane, Oug, Neb.; John McEachem, De Wese, Neb., and J. L. Meseraul, Doniphan, Neb. To Rait & McGlashan, Morrison, Iowa, they have just shipped a 20-horse power boiler with all fittings complete, and to Moses Edwards a 35-horse power engine to place in his new mill that is being rebuilt over the ruins of the one recently burned at Albia, Iowa. They have also sold one 75-horse power tubular boiler to their home electric light company, and a 50-horse power boiler to G. D. Colton & Co., also at Galesburg.

The Associated Elevator Company, of Buffalo, N. Y., has bought ground for a new elevator which when completed will be the largest in that city. It will be 306x100 feet and have a capacity of 2,250,000 bushels. The equipment will consist of sixteen 700-bushel hopper scales, four large grain cleaners and separators, and two sets each of vessel and car shoveling machines, besides complete fire apparatus and an incandescent light installment. The piles, sills and joists will be treated by the new wood-vulcanizing process. The structure will be christened the "Dakota," and will be under the management of Mr. S. F. Sherman. It will issue graded negotiable warehouse receipts, and is expected to be ready for grain by October.

At a meeting of the Buffalo Grain Shovelers' Union on March 27 the following rules were adopted: Four dollars and a half per thousand for shoveling from steam vessels; \$4 per thousand for unloading sail vessels; \$8 per thousand for unloading the propeller Nyack, and \$10 per thousand for shoveling hot grain. Hours of working to be from 7 a. m. Monday till 12 p. m. Saturday. These rules are the same as last year. A resolution was adopted that permanent firemen and coal-wheelers be abolished; also that each and every member of the union who may be employed at an elevator decline doing work foreign to that of handling grain at such time as they are so employed. That any member of this union who works at freight shall not receive pay for grain handled by his co-laborers at the same time. That the boss shovelers have a separate pay-roll for the grain shovelers from that for the freight handlers, should he use men in such capacity.

A reader of the AMERICAN ELEVATOR AND GRAIN TRADE, Mr. W. H. Comrie, of Arthur, Dak., writes back to his old home at Gloversville, N. Y., as follows in regard to the wonderful new Northwest: "The productions of this wonderful soil are amazing both for quantity and quality. The cereals, especially the small grains, grow with a luxuriance unknown elsewhere in the country. With good cultivation of ground an average crop of twenty to thirty bushels per acre of No. 1 hard wheat (the finest grade in the world) can be produced. This wheat brings from 5 to 10 cents per bushel more than any other in the market, and makes the best and most nutritious bread the world can produce. Other crops produce equally as well, and as the country becomes older will be more extensively raised. A farm here is like no other in the world. It produces more wealth, is easier managed and requires less to manage than anywhere else. There are no rocks to clear away, no trees to fell, no ditches to dig, and no irrigation to plan as in some of the states, no drought to fear, no floods to dread, no fertilizers to buy as the older agricultural countries, and no past record of failures to hover over and alarm the man who sows and reaps in the wheat gardens of the world. The land that was put in crops ten years ago is as fertile to-day as then. There seems to be no diminution in the productive qualities of this unequalled land. I have a good opportunity of knowing how productive the land is here, having been engaged in buying and shipping grain for a number of years. This year I have bought and shipped about 100,000 bushels of wheat, besides other grain. The climate of this country, as statistics show, is the most healthful in the world. The summers are warm, but not hot and sultry; the nights are always cool; the winters are not disagreeable, as the Eastern press try to make out. We do have cold spells, but the air is so dry one does not feel it as they do south and east of us. Now, this winter we have not had it as cold as you have in New York state, and I know we have not felt it as bad. For instance, the other morning I heard a gentleman from Virginia inquire how cold it was. When informed that it was 20 degrees below zero he would not believe it; did not think it was as cold by 40 degrees. We do not have much snow. In the eleven years I have been on the prairie we have not had good sleighing half of them. I really believe we have more sunny days in the course of a year than any other country."

### SLIGHTLY SARCASTIC.

Warehouse Commissioner to applicant No. 1 for position as chief grain inspector—"What are your qualifications for the place?"

Applicant No. 1—"I am a thorough grain man, and understand the grading and inspection of wheat from many years' experience."

Commissioners, in chorus—"Oh, dear! that will never do; who is the next man?"

Applicant No. 2—"If it please you, gentlemen, I am a carpenter, and know nothing about inspecting grain; in fact can hardly tell the difference between wheat and oats, but I am a granger worker and vote getter from way back."

Commissioners, in chorus—"Just the man for the place! Please be seated until we can sign your commission."



### Insurance by Carrier.

A carrier may insure property in its hands for transportation, in its own name, for the benefit of whom it may concern; and a recovery may be had upon such a policy to the extent of the interest of any one who can be considered within the contemplation of the carrier, and who, even after loss, adopts the contract of insurance, although the loss is not one for which the carrier would be liable upon its contract of carriage.

### Bill of Lading—Exception—Negligence.

In the case of the Hibernia Insurance Company vs. St. Louis & New Orleans Transportation Company, the Supreme Court of the United States held that the exception in a bill of lading of "the dangers of the river, fire and collision," covered a loss caused without negligence on the part of the carrier's agents or servants by running into a sand reef recently formed in the channel of the river, and which they had no reason to suppose was there.

### Warehouse Receipt—Pledge—Trover.

Where one had cotton of another stored with him as a warehouseman and pledged the usual warehouse receipt, without authority of the owner for money advanced to himself, and the cotton was afterward bought and recovered by a bona-fide purchaser without notice, the Supreme Court of Georgia held (National Exchange Bank of Augusta vs. Graniteville Manufacturing Company) that the pledgee could not maintain trover against such purchaser.

### Goods on Storage—Double Insurance.

Where a policy limits the company's liability to the loss affecting the interest of the assured, not to exceed the sum agreed on as the sum of the policy, and not to exceed the interest of the assured, and also provides "that goods on storage must be separately and specifically insured;" and the depositors of goods on storage had specifically and separately insured their own goods, in an action by the assured warehouseman, for the benefit of the owners of merchandise on storage, held, that the company is not responsible for goods on storage in which the assured had no interest, and there could be no contribution, there being no double insurance.—Home Ins. Co. vs. Gwathmey et al. (Va. S. C. A.), 1 *Southeastern Reporter*, March 8, 1887, p. 209.

### GRAIN PRICES UNDER PROTECTION AND FREE TRADE.

In the official report of the Secretary of the Treasury for 1863, are the monthly quotations of prices for farm products. The average prices in each year are given. The average prices are also given for six periods; first, the years of the protective tariffs of 1824 and 1828; second, the ten years of the compromise non-protective tariff from 1832 to '42 inclusive; third, the protective tariff of 1843 to '46; fourth, the subsequent four years of non-protection; fifth, the following four years; and last, the remaining years of that decade of non-protection:

YEAR.	WHEAT.	CORN.	OATS.	BUTTER.
1825 to 1832	\$1.10½	62	37	15½
1833 to 1842	1.35½	77½	43	16½
1843 to 1846	1.02	57	34½	11½
1847 to 1850	1.26	68½	43	15½
1850 to 1854	1.44	71½	47	17½
1855 to 1860	1.69	81½	48½	19½

We take the above returns as vouched for by the Hon. W. M. Grosvenor. Now, what do they show? Simply this: that a free commerce produces a larger consumption and a consequent increase of price, while a restrictive commercial policy restricts consumption and—all other things being equal—makes lower prices.

Thus, from 1825-'32, under protection, the average price of wheat was \$1.10½. The ten years of non-protection which followed, the average price was \$1.35.

The average price of corn during the protection period was 62 cents, and during the non-protection period it rose to 77½ cents; so with rye, oats, butter and cheese, all increased in price under freedom of trade.

We could fill every sheet of your paper with statistics taken from official sources showing the baneful influence of the policy of restriction in the welfare of a nation, and especially in this country, on the farming interest. All I am afraid of is, that we have sinned away our day of grace, and that, having shut the door of commerce against ourselves, when we again knock for admission the answer will be: Too late, too late, you cannot enter now!

I am a believer in the following principles, as announced in Adam Smith's "Wealth of Nations," viz.: "That the most effectual plan for advancing a people to greatness, is to maintain that order of things which nature has pointed out; by allowing every man, as long as he observes the rules of justice, to pursue his own interest in his own way—without any governmental protection—and to bring both his industry and his capital into the freest competition with those of his fellow-creatures."—*Farm Stock and Home.*



## Fires, Casualties, Etc.

Peter Weirich, brewer, of Grand Rapids, Mich., has died.

F. E. Kleber, brewer at Walla Walla, Wash. Ter., was lately burned out.

Henry Schmitz, brewer at Egg Harbor City, N. J., has lately been burned out.

The brewery of Jacob Betz, at Walla Walla, Wash. Ter., was recently burned.

The distillery of W. R. May at Leitchfield, Ky., was recently burned. Loss, \$20,000.

The distillery of J. R. Patterson & Co., at Franklin, Ark., was recently destroyed by fire.

A recent fire at the South Omaha Stockyards, Omaha, Neb., destroyed 4,000 bushels of corn.

Josiah Crosby, originator of the celebrated Crosby corn, died some weeks ago at Arlington, Mass.

Moses DeCamp, of the milling and grain firm of R. M. Sims, of Frankfort, Ind., died March 31, of pneumonia.

Fredericks and Lewis, the wheat thieves, were each sentenced to the penitentiary at Anamosa, Iowa, for two years.

The granary of E. A. Buck & Co., grain dealers at Willimantic, Conn., was recently burned; partially insured.

Henry Bergstrom, a grain dealer of Cannon Falls, Minn., drowned himself while in a fit of temporary insanity.

John Penfield, a grain dealer living at Rantoul, Ill., was stricken with paralysis April 7, and it is thought he cannot survive.

West & Old's elevator at Gifford, Ill., was damaged by fire March 12. The fire communicated from the smoke-stack to the roof.

C. T. Howe & Co., a Board of Trade commission firm at Chicago, were forced to suspend March 15, owing to the down turn in wheat.

The safe in L. Van Inwegen & Son's elevator at Hastings, Minn., was forced open by burglars some weeks ago and a small sum of money taken.

Budd Reeve, of Hillsboro, Dak., has sued the *Hillsboro Banner* for \$25,000, charging that he was libeled by recent statements about his elevator affairs.

The J. Walker Brewing Company's establishment, at Cincinnati, Ohio, was destroyed by fire April 9. The loss of \$50,000 was fully covered by insurance.

Half of one side of the Red River Valley Elevator Company's elevator at St. Hilaire, Minn., burst April 9, scattering 5,000 bushels of wheat on the ground.

The locks on the canal at Defiance, Ohio, were blown up by dynamite March 28 by a party of armed men. It will take many months to repair the damage done.

An incendiary fire at Wahoo, Neb., on the night of the 3d inst., destroyed the grain elevator of H. H. Dorsey and three flat-cars. Loss \$10,000; insurance \$7,000.

The Jamestown Brewery, at Jamestown, Dak., was burned March 17. It was owned and operated by Philip Bauer. The loss is about \$25,000; insurance \$14,000.

Bawlf's warehouse at Rapid City, Man., collapsed recently, letting out about 10,000 bushels of grain. Favorable weather prevented the grain from being very much damaged.

Charles Nobbes' elevator at Litchfield, Ill., was burned some weeks ago. Loss \$5,000; fully covered by insurance. The fire is supposed to have been the work of an incendiary.

John A. Buckles, of Lake Fork, Ill., bought 2,500 bushels of corn and cribbed it near the Illinois Central Railroad. A spark from a passing engine ignited it and it was entirely destroyed.

W. T. Clayton, a former partner of Mr. W. O. Ellis in the grain commission business at Houston, Tex., was recently arrested in Chicago on the charge of embezzling \$6,000 of the firm's money.

On the night of March 23 two large cribs of corn at Bevington, Iowa, containing about 7,000 bushels, were destroyed by fire. The corn and cribs were the property of the International Distillery of Des Moines. The fire is supposed to have been of incendiary origin.

On Monday, April 4, Mattie, the six-year-old child of Francis R. Rankin, of Richmond, Ind., while at school, was choked to death by the drawing of a grain of corn into her windpipe. An operation was performed, but it proved unsuccessful, and she died from strangulation.

William Farnsworth, as receiver for the Northwestern Grain Dealers' Association at Minneapolis, Minn., has commenced suit against Peter Sucherland for \$325, the amount of a certain dividend which was paid to the defendant just before the assignment of the association.

We regret to announce the decease of Mr. W. H. Boies, a prominent grain dealer, which occurred March 9, at Gridley, Ill., from an attack of apoplexy. He was born in Livingston county, N. Y., Jan. 22, 1833. In 1856 he came West, ultimately settling in Gridley, where he engaged in the grain business in connection with Richard Breese. In 1867 he built the elevator known as the Boies &

Breese Elevator, having a capacity of 25,000 bushels. In 1884 he built another large elevator, having a capacity of 10,000 bushels.

The round elevator at Herman, Minn., owned by the Northwestern Elevator Company, caught fire April 3, but the flames were extinguished before much damage was done. Nearly 40,000 bushels of wheat were stored in it and the Farmers' elevator adjoining. A few hundred dollars will cover the loss.

Edwin C. Paine, of Clio, Mich., and Court Bendt, of Mt. Morris, Mich., who were convicted of uttering forged grain checks on Mauk & Son, of Clio, were sentenced, Paine to Jackson for five years and Bendt to Ionia for two years. There are still two other complaints against Paine for the same crime.

On the morning of April 8 a rock weighing about seven pounds went flying through the air and crashed through the roof of the Gate City Elevator at Kansas City, Mo., creating quite a panic. The rock came from a place where some workmen were engaged in blasting and traveled a distance of 800 feet.

The Northern Pacific Elevator, at Buffalo, forty miles west of Fargo, Dak., containing 40,000 bushels of wheat, burned April 3. The building was valued at \$10,000 and the wheat at \$25,000; fully insured. The elevator belonged to the Northern Pacific Elevator Company, which has about twenty elevators in North Dakota and the Red River Valley.

Mutchner & Higgins Company's Elevator "D," at Indianapolis, Ind., was damaged by fire a few days ago. The proprietors think the fire originated from a hot-box inclosed in a wooden chute. All the shafting and machinery in the basement and on the second floor were damaged, but the building itself was only scorched. The loss was about \$1,200; fully insured. The elevator contained about 20,000 bushels of wheat and corn.

## WHEAT IN MICHIGAN.

In the past, writes A. C. Towne to the *Michigan Farmer*, when wheat was selling in our markets for \$1.50 to \$3.50 per bushel, we did not stop to consider the cost, but went on improving our farms and increasing our acres for wheat. The West has developed her capacity to produce wheat on her bonanza farms. The era of twine binders limits our capacity to produce only by the limits of our farms.

India, with her cheap land and still cheaper labor, competing with us for the markets of the world, has gone on producing until at present the price is unremunerative, and by many claimed below the cost of production. I am inclined to think, under our ruinous mode of farming, in many cases it is true. There are very many honorable exceptions, when, under a different system of farming, the average is much higher. But it is the exception and not the rule. It is the many and not the exceptions that make our state prosperous and happy. Michigan, the home of the wheat plant, with a soil unsurpassed in plant food (if properly fed), is capable under a wise system of farming of producing from 40 to 50 bushels per acre, if it were not for the vicissitudes of our ever changing winters, and the many insects that play upon our wheat plant. It is these facts, brother farmer, which are staring us in the face. The intelligent farmer and agricultural writers are seeking for a solution of this vexed question, so easy of solution on each of our farms.

Statistics show that of the wheat crop harvested in 1885, 65 per cent. was raised on corn, wheat, oat and stubble ground, and only 35 per cent. on clover, timothy and June grass, summer fallow (with surface cultivating). Every intelligent farmer knows that the 65 per cent. mode of farming lessens the average annual yield of the wheat crop on his farm, and helps to contribute to the low average of the state. Here is a partial solution. But let us carry this investigation farther. Reports from eight or nine hundred correspondents for the wheat crop of 1886 give in their October report the average yield on summer fallow as 25.02 bushels per acre; corn ground, 12.75 bushels, or 7.29 bushels less than fallow; wheat stubbles, 13.15 bushels per acre; or 6.87 bushels less than fallow; on oat stubble 14.23 bushels per acre, or 5.79 bushels per acre less than fallow. The above statistics represent four acres of wheat, and that they produced 60.55 bushels, or on an average of 15.11 per acre, and demonstrates the fact that, avoiding fractions, the 60.55 could have been raised on three acres of fallow, lessening the cost one-fourth per acre, and one more acre left in pasture for cattle and sheep, and one-fourth added to product of labor.

The average annual acres in wheat for the state from the years 1876 to 1884 was 1,547,466. The average annual number of bushels for the same years was 25,915,235 bushels. If the above line of farming (all fallows) had been carried out, the same number of bushels could have been raised on one-fourth less number of acres; the average annual yield been increased per acre one-fourth, or 20 bushels instead of 16 bushels per acre, and 386,866 acres more in pasture to be enriched by cattle and sheep. Statistics show in those counties where the greatest number of cattle and sheep are kept on 100 acres of improved land, those counties produce the largest average yield per acre. Reducing sheep to cattle, one-eighth in a group of 24 counties, the average was 13 head per 100 acres of improved land. According to the above line of statistics, the 386,866 acres would maintain 50,229 head of cattle more than under our present system of farming, or 6,286 head of cattle and 44,006 head of sheep. The writer, with much timidity, will give some statistics for Kalamazoo county, and what is true of one county will be proportionately true of other counties. Kalamazoo county

raised as an annual average for the years 1880 to 1884, 67,594 acres of wheat, and an average for the same time 1,126,702 bushels, an average of 16.27 bushels per acre. If the same line of farming was carried out (all fallows) deducting one-fourth from the above average acres in wheat, it would leave for pasture 16,898 acres, which would maintain of cattle (sheep reduced to cattle—one-eighth) 1,745 head, or 986 cattle and 6,079 sheep. The average annual acres in wheat per 100 acres of improved land was 27.59. Reduce this one-fourth, and the average would be 23.39 per 100 acres, and raise the average to 20.66 bushels per acre.

If the above line of farming was carried out, it would not decrease the amount of wheat raised in the state, but increase the amount, from an increased fertility of our farms, lessen the cost per acre one-fourth, increase our farm incomes by an increase of stock.

## ITEMS FROM ABROAD

In Sweden the bill to increase the tax on imported grain to 54 cents on 220.5 pounds has failed.

Official reports place the French wheat crop at 311,703,000 bushels, or about 25,000,000 bushels above private estimates.

Hungary's wheat crop of 1886 is reported as 103,065,000 bushels, against 112,520,000 bushels in 1885, and 103,888,000 bushels in 1884.

The wheat area in India in 1885-6 was 25,350,000 to 25,853,000 acres. The average yield of wheat in India is about ten bushels per acre.

The death is announced of Baron Hindlip, formerly Sir Henry Allsop, a member of the famous brewing firm of Burton-on-Trent, England.

Russia's wheat crop of 1886 is reported at 198,135,000 bushels, against 177,753,300 bushels in 1885, but the quality of the 1886 crop is inferior.

Since April 1 the exports of wheat from India aggregate 41,248,000 bushels. Of this quantity the continent took 20,900,000 bushels and the United Kingdom 20,348,000 bushels.

Some of the tradesmen and grain-growers of Bakov, Bohemia, have joined in the organization of a bakery at which farmers can exchange their grain for bread independently of the miller.

It is officially estimated that the wheat acreage of the Punjab district of India for this season is 6,857,000, a decrease of 2 per cent. from that of last year. This district constitutes about one-fourth of India's wheat territory.

According to the British Board of Trade returns, the importation of wheat into the United Kingdom during the month of February was 4,480,578 hundredweight, against 2,441,448 hundredweight during the month of February, 1886, and of flour 1,595,391 hundredweight against 890,839 hundredweight.

Having levied an almost prohibitory duty on wheat, the French government is now considering additional import duties on flour and various kinds of grain besides wheat. She is pursuing the economic policy of eating up the seed corn. In the strain of raising war revenues amounting to \$600,000,000 in time of peace, she is placing oppressive weights of taxation upon the very springs of life.

A measure was recently passed by the Chamber of Deputies in France, by a vote of 328 to 238, increasing the import duty on corn. It was, however, accompanied by the provision that the ministry be empowered to suspend wholly or partly the duties on corn or flour "in exceptional circumstances, and when the price of bread rises to a rate threatening to the sustenance of the people." In commenting on this new impost duty, the London *Fair-Trade* remarks: "For the last year or two France has levied a duty of about 6s. per quarter on wheat at her ports. Has this duty then increased the price of bread to the consumers, or created any difficulty? The answer is, No. Bread itself is not dearer in Paris, or in any other French town, than it was before the duty. Some time ago Mr. Holden wrote from Rheims that the loaf was cheaper there than in Lancashire. Wheat itself has generally been a few francs per quarter dearer at French outports than in London, or say to the extent of a portion, generally half, of the duty. But this proportion has varied, the law of supply and demand so absolutely regulating prices that on one occasion wheat was 1d. per quarter cheaper in Paris than in London, notwithstanding the 6s. per quarter duty paid. In any case, however, the cost of bread has not risen, and therefore we may safely say that the action of the moderate duty has not been to make the consumers pay it, but to reduce the 'middleman's' profits, putting what he has lost into the pocket of the state instead, together with another portion of the duty paid by the foreign exporter as his market toll."

Says the Indianapolis *Journal* of the 15th inst.: "If we had our rebates back," remarked a grain handler yesterday, "the new rates would place us at no disadvantage. All the money I have made in the five years I have been business at Indianapolis was the rebates the roads gave me to secure business."



## WATERWAYS

The Orlando Winter Park & Maitland Railroad and Canal Company has been incorporated at Orlando, Fla.

The Erie Canal was opened in 1825. The old Middlesex Canal had been in successful operation for over twenty years at that date.

Grain-laden vessels are preparing to leave this port for the lower lakes, the prospect of getting through the Straits of Mackinaw being favorable.

The tolls on the St. Lawrence canals going east have been reduced by the Canadian Cabinet from 20 cents to 2 cents per ton going east. The reduction does not apply to freight in American vessels passing through the Welland Canal.

The Illinois & Michigan Canal was opened for navigation from Bridgeport (Chicago) to La Salle Friday, April 1. Boats will be allowed to draw four feet eight inches, except on the Summit level, where five feet will be allowed.

Delegations from eight towns along the Illinois River and the canal met at Ottawa, March 29, and passed resolutions asking the Legislature to defer action on the Chicago drainage bills until next session. A committee of seven was appointed to draft amendments to secure a commercial waterway.

The New York legislature has appropriated \$550,000 from the treasury to improve the splendid free waterway from Buffalo to tide water, the Erie Canal. It would seem from this that in the opinion of the state which holds more commercial talent than any other ten states, water transportation is not "played out."

Articles of incorporation showing the organization of the Peoria Steamboat and Barge Line have been filed for record. The company is now engaged in contracting for the leasing and building of a line of steamers and barges for the transportation of grain and other articles. Already a large number of inquiries have been made for the boats, which is very reassuring to the organizers.

Hon. O. B. Potter makes the significant suggestion: "But for the influence of the canals in keeping freights down to a reasonable limit, the cost of transportation by rail would be so advanced—at least 25 per cent.—as to send to other ports nearer by rail to the fields of production than New York, and through such ports to the outside world, the large majority of the freights and business now done through our state as the highway of commerce."

In spite of the vast amounts of money expended in improving their road beds and motive power, it has been amply demonstrated that the railroads cannot carry as cheaply as the canals. On the preservation of the latter largely depends the retention of the Western trade, for which other states are contending so fiercely, the supply of cheap material to our manufacturers and the building up of the interests upon which the great wealth and population of our state depends.

The Miami and Erie Canal Association met at Dayton, Ohio, April 7, with representatives of the canal interests from all parts of the state in attendance. A committee was appointed to confer with the board of public works in regard to building a new dredge for the southern division of the Miami and Erie Canal. A committee was also appointed to formulate a resolution and devise ways and means to foster and increase the number of boats and further transportation of freight on the canal. A general discussion of the interests of the canals ensued, and plans for a more thorough fight against the many enemies of the same were devised.

The proposition to seek federal aid for canal improvements does not commend itself to those who have devoted the most attention to canal matters. The canal convention of 1875, over which Horatio Seymour presided, pronounced against it and so did the convention of last year. Both of these were representative bodies; therefore their judgment on the point is entitled to great weight. Thus far in her history New York has been abundantly able to take care of her canals. Is she likely to be less able in the future? No good reason which is consistent with a healthy state pride can be brought forward for the proposed new departure.—*Ex.*

The New York Board of Trade and Transportation have prepared a table of statistics which those who are disposed to throw stumbling blocks in the way of canal improvements would do well to study. The table shows that during the season of navigation in 1886 the canals delivered at this city 11,632,589 more bushels of grain than the railroads delivered, and 10,867,473 more bushels than were received by all other routes combined. The table also shows that the receipts at New York by canal during the same period exceeded the aggregate receipts at Philadelphia and Boston for the entire year, and were only 22,462,190 bushels less in seven months than the total amount received at Philadelphia, Boston and Baltimore. Another point of large significance established by the statistics in question is that "while the canals are open and directing the channel of trade toward New York that city is the center of the grain trade; when they are closed the competing ports more than hold their own." Such facts as these need no comment with intelligent men. They ought to have a determining influence with our lawmakers. The continued commercial supremacy of New

York is largely conditioned upon the canals. And if the canals are to prove equal to the demands made upon them they must be improved, and improved without delay.—*N. Y. Tribune.*

Forwarders and grain exporters at Montreal are considerably disturbed by rumors which have reached that city to the effect that the operations in deepening the Welland Canal will not be completed in time to open the route for traffic the 1st of May next, as had been expected. As the greater number of the steamers and barges engaged in transporting grain from Chicago winter on that side of the Welland Canal, any delay will be very serious and may cause heavy loss to shippers who have made contracts there. They say that if delay occurs it will result in a blow from which the grain trade will scarcely recover during the whole season.

The expenses of a single boat on the Erie Canal, as computed by experienced men, amount to \$2,000 a year. Estimating the number of boats at 3,500, the total amount of their expense would be \$7,000,000. This is paid out for hay, oats and corn, for provisions and groceries, and goes into the pockets of the farmers and merchants along the line of the Erie Canal and Hudson River. The expense of maintaining the canal amounts to a little over a million dollars a year. A more profitable investment could hardly be found. I know of no private enterprise that makes such a return. In addition to all the benefits which I have enumerated, farmers throughout the state have the advantage of a near-by market, which large bodies of population always afford.

The total traffic using the Sault Ste. Marie Canal has quadrupled in a decade, and is now increasing at a marvelous rate. The value of this commerce for 1886 is officially given as \$69,080,071.95, as against \$53,413,472.13 for the preceding year. The outlook justifies a prediction that for 1887 the valuation will approach \$100,000,000. The phenomenal development of the iron mines of Minnesota and Northern Wisconsin, and the great demand for their superior ores, will nearly or quite double the output this year. The wheat shipments and flour shipments are certain to be largely increased. The Duluth coal receipts, also, will show a very heavy percentage of gain, and the miscellaneous business will be likely to double. Irrespective of the effect of the inter-state commerce law upon railroad rates, there will be a large gain in the aggregate quantity of Lake Superior traffic, growing naturally and legitimately out of the development of the mines, of the lumber interest, of the wheat region, and of Duluth as a transportation center. But this natural increase must, it would seem, be augmented to a degree not as yet calculable, by the new national legislation.

The state of Pennsylvania transferred its public works to a railroad corporation thirty-eight years ago, and today nearly all the canals in the state are useless. The Pennsylvania Railroad Company applies to the Legislature at every session to abandon an additional section of the canal system, which it obtained under a pledge to maintain forever, and as each year's work is completed the damaging results of the transfer become more and more apparent. The Pennsylvania Railroad Company drives traffic off the canals and on to its own tracks. The Susquehanna and Juniata Valley are almost completely at the mercy of a monopoly because of the absorption of the canals and because the Pennsylvania Railroad Company violates the terms of its contract with the state in 1861, and disregards the provisions of the state constitution guaranteeing equal rights to all shippers. The Schuylkill Canal was likewise brought under the control of the Reading Railroad Company, and all the industries of that rich section were placed for a time at the mercy of a railroad president. The Lehigh Valley Railroad Company also contributed to the destruction of artificial waterways and thereby destroyed a competition which was healthy, and which would have protected the state from the exactions imposed upon it by companies that were chartered as common carriers.

Mr. Pope, the Canadian Minister of Railways and Canals, states that there is no ground for alarm lest the deepening and enlargement of the Welland Canal should render it impossible to throw the canal open for traffic on the opening of navigation. The contractors for the canal improvements were pushing their work along rapidly toward completion, and on this account there would not be one hour's delay the moment navigation opened. He further added that the Dominion government well understood the importance to American and Canadian shippers of having the Welland Canal open for traffic the moment it would allow a vessel to pass through. It is expected that by the middle of June there will be a depth of fourteen feet from one end of the canal to the other. Parliament will also be asked to vote a sufficient sum to enable the government to go on at once with the enlargement and deepening of the St. Lawrence canals to a uniform depth with the Welland, so as to admit a vessel passing down from Chicago to the Atlantic without lightening her cargo. It has been suggested to make the canals free of toll, which could not be done without an act of parliament. The government have power to reduce tolls to a nominal figure, but not to abolish them altogether, and, as in the case of last year, will, it is understood, reduce the toll to the nominal rate of 2 cents per ton, just to keep within the act. They would in this way retain to themselves the power to reimpose the regular rate if at any time it was deemed advisable to do so, which would not be the case if abolished by legislative enactment.

Mr. A. J. Green, near Lake Manitoba, offers to build a 40,000-bushel elevator at Portage La Prairie, Ont., on condition of receiving a \$7,000 bonus.

## STORAGE OF GRAIN.

(From the Liverpool Journal of Commerce, March 15, 1887.)

The subject of providing the most efficient and economical method of storing grain has received much attention in America, on the Continent (more especially in Germany) and in this country, and we have now before us an elaborate treatise on "The Construction and Equipment of Grain Magazines," by Mr. G. Luther, the celebrated milling engineer of Brunswick. The work has been issued in this country under the auspices of Mr. F. Stallmaier, of Manchester, who, in conjunction with Mr. Joseph Fux, milling engineer, has performed the work of translation, and there can be no doubt respecting its fidelity, even to the most technical terms. Avowedly designed to demonstrate the superiority of silos over floor granaries—the special attributes claimed being the most perfect utilization of space, simple mechanical changing, convenient discharging, overlook over each class of grain, and turning the grain without mechanical labor—the author applies himself in the most painstaking manner to the elucidation of his subject. Adopting the word "elevator" as signifying a warehouse containing different mechanical lifting, conveying and cleaning machinery and apparatus, Mr. Luther observes that the principle of storing grain in elevators is based upon treasuring up the grain in hollow, completely-covered shafts, and therefore the building required for such purpose would have no middle floors, only vertical partition walls, dividing the whole space into sections which receive the grain. As this principle is adopted in all silo construction, the distinctions of the various systems are found simply to be (1) in the shape of the shafts or bins; (2) in the material of which the partition walls are built; and (3) in the different shapes the bottoms of the shafts or bins are formed. With the aid of a series of well-executed plates Mr. Luther illustrates in detail the principle involved, and he sums up by observing that the silo system was condemned by its opponents, as it was thought the buyer could not convince himself of the quality of the grain in such magazines, although in reality, he says, nothing is easier. A tube with divisions is sunk into the grain; every division is provided with a door having a projecting lip attached to it outside, which opens by turning the tube in a certain direction. The grain is thus admitted to the division, and is extracted as a sample by turning the tube in the opposite direction, for then the doors close again and the grain cannot get mixed, and can be examined when the tube is drawn out of the bin. On the other hand, as regards horizontal or floor granaries, the author says that the great drawback to the system consists in the expense involved in the employment of manual labor, not only for the turning of the grain, but also for shoveling to and from the elevators or traveling bands when being stored or removed. He likewise condemns the use of hoppers as a means of reducing expenses, inasmuch as the space generally utilized is only one-third of that which ought to be utilized, thus, Mr. Luther argues, adding considerably to the current expenses in regard to storing space, and also in regard to material and labor for building, together with a proportionate increase for interest on capital, labor, building material, fire insurance and amortization. As the walls and floor construction of such granaries require to be very strong compared with those erected on the silo system (which need only to be very primitive in construction, and considerably less costly), Mr. Luther thinks there can be no question as to which system should be preferred. Although from his professional connection he may be regarded as writing in some degree from interested motives, Mr. Luther's book is highly deserving the attention of those concerned. But there are certain considerations which should not be overlooked. Experience has shown, for example, that in all silos, whether loading or discharging, there is always a disposition on the part of the weighty grain to gravitate to the center. Complaints have accordingly been made that the quality was irregular, and members of the trade naturally express themselves dissatisfied on this score. It might be that one merchant got a quantity of grain superior to sample, at which he would not be inclined to cavil, whilst another would be served with a lot of lighter grain, with an undue quantity of chaff and dust, which he had not bargained for. Again, it may be true that by the silo system an amount of manual labor is saved, but this economy is effected at a greater risk of heating and sweating than in horizontal storage. Grain coming into England after a sea voyage, say from America and Canada, is generally not in so good condition on arriving as when it left, and there is therefore all the greater risk in having it closed up in silos, which are suitable only for the storage of perfectly sound grain, not likely to develop heat or softness, which may not necessarily permeate the whole parcel, but only partially, in which case the horizontal system affords more ready means of ascertaining the locality and extent of the grain affected, and applying the remedy as required. The sampling of grain in silos by means of a tube with sliding doors at certain distances is found to be not only very difficult by reason of the depth the tube has to reach, but rather uncertain in the result. The practice here being to keep each consignee's lot to itself until delivery is complete, it follows that the silo system loses storage space to the extent of partial delivery from each silo. Other points might be adduced, but sufficient has been indicated to justify gentlemen who possess a full knowledge of the subject in clinging to the system of horizontal storage.

The Frost Mfg. Co. have just shipped to Henry Hellman, Hanover, Kan., a 4-horse power engine and boiler, being the second complete outfit sold him.



## Press Comment.

### DIVIDENDS ON IDLE ELEVATORS.

Canal boatmen have slender pecuniary means outside of their investments in boats and animals for towing. But they have the good will of the community in their struggle against the "elevator rings." \* \* \* The injustice of organizing all the grain elevators at Buffalo into a "ring," shutting up two thirds of them and fixing rates for the work done by the other third, to pay a heavy dividend on the whole, is monstrous, and every honest endeavor to break up such a "ring" and subject the rates to fair competition deserves sympathy and encouragement.—*N. Y. Herald.*

### THE MANDATE OF THE LAW.

Bucket-shop gambling very properly, in legal parlance, comes under the category of crime. The Missouri Senators are discriminating gentlemen, and referred the Salisbury anti-bucket-shop bill to the committee on Criminal Jurisprudence. Yesterday the committee reported favorably on the bill, sending it back to the Senate without alteration or amendment. The original Salisbury bill has passed the Senate. Bucket shops may now prepare to join the faro banks and become outcasts and exiles from the State of Missouri. Such is the mandate of the law.—*Kansas City Star.*

### WHEAT RATES.

Silver bullion has declined three pence per ounce in London in a few weeks, and is evidently gravitating to the previously unheard-of point of depression to which it sank in 1886. But the standard silver coin of India remains at par, and being itself the standard price-regulator in India, it must be, as a thing of necessity, always at par. The price a few weeks ago was 7 per cent. higher than it is now. That is to say a wheat shipper would have had to pay 7 per cent. more for India money or for a bill of rupee exchange in London than now. In remitting for a purchase of wheat, therefore, the wheat would have cost him 7 per cent. more than now on this account alone. He pays the same number of rupees for the wheat, but the rupees then would have cost him 7 per cent. more in gold in any European market than now. This has no direct bearing upon the cost of American wheat, but as he can buy the wheat of the April harvest in India so much cheaper by reason of this fall in exchange, he will buy that wheat until the American gets down to a point which will cover the difference. It has started down in Liverpool to meet that difference. It has declined 3½ per cent. in Liverpool, while American markets are two cents higher than ten days ago.—*Louisville Courier-Journal.*

### THE WINTER-WHEAT TRADE.

Interior dealers have become experts in mixing their wheat. Sometimes they overdo it, and the wheat does not reach an expected grade, and then "Rome howls." Recently a dealer sent three samples here, wanting offers for them. He said one, the best, had an old smell, the second was good rejected, and the third good chicken feed; that "on a free movement of wheat he could mix all these grades with the best wheat, and it would pass No. 2 at the seaboard." Now, he could not do so, and must sell them on their merits. From end to end of the Western wheat belt is adroitly mixed down to the bottom of the grade. What are we going to do about it?

The business in wheat all over the country is at zero. Somebody holds it within such narrow limits in fluctuations as to discourage buying or selling. The steadiness in American markets does not tend either to advance values or increase the demand abroad, because American bear dealers give them the impression that the holders of May and June futures are likely to drop them any day, notwithstanding the margin of 10 cents bus. over freight between Toledo and Chicago prices and Liverpool. All which raises the question of whether it is the bulls or bears who are producing the stagnation in trading. It will be discussed in the Kindergarten, and we would as soon be guided by their verdict as any.—*Denison B. Smith, Secretary Toledo Board of Trade.*

### THE MAKE-UP OF THE COMMISSION.

It will not escape notice that every member of the commission is a lawyer. This fact, however, has not the same meaning in the United States that it would have, for example, in England. There is not there the same close connection between the law and other public employments that exists with us, and the practice of the legal profession is felt to develop a more distinctively professional type of mind there than here. In England it is the exception for a successful lawyer to distinguish himself in public office, whereas the majority of American statesmen of eminence have been lawyers. Here, too, the robes of the profession are often worn very lightly, especially by those who take an active part in politics. In one respect the legal training of the commissioners will be of advantage. The Inter-State Commerce Law is a measure which stands peculiarly in need of interpretation. As a matter of fact the full bearings of the bill cannot be understood until it is construed by the commission. This being the case, the construction given to the various clauses of the bill at the outset will be of the first importance. For this line of duty a legal training is, without doubt, the best equipment. Of course, much more than a mere legal interpretation of the provisions of the

bill is looked for from the commission. It should not become a mere judicial body, as it is claimed commissions in England have shown a tendency to become. From a too great bias in this direction the general experience and attainments of the members may doubtless be trusted to preserve them. Judge Cooley, for example, is a publicist as well as a lawyer and judge, and his acquaintance with railroad problems is extensive. Mr. Morrison, again, has dealt with large public interests as a legislator, and, in fact, is chiefly known in that capacity rather than as a lawyer. Taking everything together, the commission ought to be able to give a good account of itself, and to discharge its important duties to the satisfaction of the public. It starts with the advantage of having already inspired confidence as to its success among those best qualified to judge, as far at least as the personnel of the commission is concerned.—*Bradstreet's.*

### RAILROADS IN POLITICS.

If the Inter-State Commerce Bill will give each locality the full benefit of its natural advantages, then much good will be accomplished. Railroad managers have no more right to make and destroy towns than has the Government the right to prosper one section or one industry at the expense of another. Discrimination of such character by law or the creatures of law are alike baneful, and the principle is repugnant to every sense of liberty.

If, then, the railroad corporations are assailed, and by an overpowering force, their place in politics should be seen readily to be on the side with the great masses who have compelled the United States Congress to pass the bill, and who will compel states to follow with local regulations in harmony with that of the Government. There is now no escape from a long wrangle and a thorough trial of the paternalistic method. Its hardships and all its obnoxious features can only be averted by a complete and quick alignment of corporation owners and producers.

If the railroads will insist on buying their iron, their lumber, their glass, and all that makes a railroad, where they can buy the cheapest, and if their employees and stock and bondholders will insist on buying their clothing and their food free of bounty to some one else—in short, if the railroad corporation beneficiaries will take their natural and rational place they will be found with the reformers, insisting on equal taxation, averse to bounties, hostile to favors under law, and for such full liberty as will give every individual and every section the full benefit of God's wisely-distributed advantages.—*The Million.*

### SHUT OUT.

It will soon be discovered that the results of forty years experience in railroading, however ill digested, cannot be set aside by a wave of the hand without disturbing to some extent the commercial interests of the country. The railroads followed the policy of encouraging the extension of industries where they were not progressive. They have aided in building up sections where high rates would have kept them a barren waste. They have been content to take only a narrow profit where the demand for a large profit would have stifled industry and checked production. By apparent injustice in many cases good has followed. By charging less for a long haul than a short haul often they were enabled to charge less for a short haul than they could have done had they charged more for the long haul and not got it. The broad railroad policy long ago recognized that the true interest lay in the prosperity of all industries and of all sections. They reduced rates to benefit one or the other, and the reduction generally resulted in benefit to every other. There were times when this was abused for personal ends, but it remains a fact that the great West was built up and flourished on a policy that charged less in proportion for the longer than the shorter haul. The law now prohibits this, and says that the railroads have no right to extend assistance to infant or languishing industries or localities, for it is discrimination against those more favored in other respects. So far the only protest made by any portion of the public is that the railroads are seeking to obey the law, not to violate it. That is the cry of the jobber who gets no advantage from the wholesale system, from the merchant whose agents get no less rates to travel on than the public, from the theatrical manager whose special rates are cut off, from the manufacturer who is shut out of old markets. The millennium has not come, and nobody is happy.—*Chicago Times.*

### STATE ELEVATORS.

This State Elevator bill presents the only true way of redressing an abuse which Buffalo, no less than New York, would do well to get rid of. What are the facts? For years bills have been introduced in the State Legislature asking for the reduction of floating and stationary elevator charges. No one but those financially interested in this grain transferring business questions the fact that the charges for the services rendered are exceptionally high. The press of New York City and State, labor organizations, commercial bodies, the State Grange, influential firms and others have over and over testified that these ruinous fees menace commerce and place an embargo upon it. The only New York body which declared otherwise was the Chamber of Commerce, but the meeting with which such declaration was made was packed by the elevator men and their friends. Your townsman, the Hon. Edward Gallagher, now the chief opponent of any reduction, swore in 1883 that half a cent a bushel for transferring grain was quite sufficient, and allowed a good margin of profit. Let us add right here that coal taken out of boats sunk in twenty-three feet of water can be brought to the surface cheaper than the elevator owners transfer the same quantity of grain from a canal boat

lying safely beside the elevator. The charges in other ports, as the *Advocate* has repeatedly shown, are considerably less than those of New York and Buffalo. New York merchants—one of them an elevator owner—have testified that we cannot hold our trade with these excessive terminals, but that other ports less favored by nature will constantly outstrip us. Now every honest and honorable means have been employed to have these unjust burdens swept away. They have, however, failed. Strong lobbies have defeated proposed legislation at every session. But infinitely better would it be for the elevator men to accept the inevitable. A reduction is needed, and it will come. The press of Buffalo ought not to oppose a bill, therefore, which enables the people of the State to protect the commerce of the canals and save it from being bled at both ends of the Erie. The canals belong to the people. The people are pledged to preserve them. Then let the legislature brush away all barnacles and permit the business of the waterways to be done on a business basis. There's no sentiment in business. The railroads own and control their terminal facilities; cannot the people be trusted to control their canals' terminal facilities?—*Canal Advocate.*

### THE INTER-STATE LAW AND THE GRAIN BUSINESS.

We asked the manager of a large grain firm a few days ago as to the general condition of the grain business at this time. "Oh, there's nothing in it," he said. "This Inter-State Commerce Law knocks us higher than a kite." "How's that?" we asked. "You see," he said, "about all the money that there has been in the grain business for us for several years has been in the rebates and the advantages which we have been able to secure over other dealers through our ability to control freight rates by means of the volume of our business. As it is at present everything is uncertain. We appear to have no special advantages of this kind." "Other people had the same advantages that you had, did they not, in the matter of rebates?" "They did if they could get them, but the firm that handles a large bulk of grain could do better than one handling a small quantity. The man who bought only a few cars a day could not expect to get in on the ground floor in a matter of freights. We could buy the grain from these little fellows and sell it at a less price than they could afford in the Eastern market and still make money. The man who had a hundred cars of grain to throw at a line agent could make a better bargain than the one who had two or five or ten. Thus it was that we could handle grain merely for the rebate that we could get on the freight and expect no other profit." "Was there much trouble in getting these rebates?" "Well there was a good deal of work about it. One man could pretty well afford to put in his time on it if necessary. I suppose that during several years past I have used about one-third of my time in traveling in regard to freight business alone. You see these freight agents would get together and agree to maintain rates, and then we had to hustle around and get them to agree on a rebate or something of that kind. It was the most valuable when it was the most difficult to get, because then you know every one didn't have the same advantage that we had. As it is now every one connected with railroads, from the president down, can get behind this Inter-State Commerce Law and you can't touch him. As it was, if a man told you he couldn't cut, you could laugh at him. Now he can laugh at you."—*The Millstone.*

### THE EXCHANGE AND THE BUCKET SHOP.

It would necessitate a long discussion about the meaning of terms in order to decide whether or not the business on 'Change is more or less gambling, but no one can successfully dispute the assertion that it takes care of and markets each year some \$400,000,000 worth of produce as it passes between the producer and consumer, and very often carries a large part of that property for several months, from the time one of those parties wants to sell it to that at which the other wishes to buy it, while the bucket shops do nothing but bet on the prices. It is only necessary to point to the sixty-odd million bushels of wheat that have formed the "visible supply" all through this winter, and the vast quantities of other produce that are normally carried in stock for so long, to see that some agency is required to perform so important a service. That agency is indisputably the Board of Trade, and with equal certainty it is not the bucket shop. Furthermore, it may be stated in justification of what is sometimes alleged to be gambling on the board that no farmer could sell his produce for future delivery in any shape unless some one be willing to assume the risk of caring for it, and nobody cares to undertake that risk without at least the hope of a profit. It follows that some of this kind of trading is absolutely necessary to the conduct of business at both ends of the line in anything like its present shape, and if occasionally there be a little too much of it the fact no more proves the whole thing to be wrong than would an act of gluttony establish it as our duty to cease altogether from the use of food.

We repeat that the so-called "trading" in the bucket shop does not aid in the movement of produce, and therefore has no right to be classed with the other. On the contrary, it belongs to the domain of the pool room and the faro bank, where souls go down to perdition amid the false excitement which attends the hope of being able to win the money of another without earning it by the performance of a service. A reference to the last-named point furnishes the crucial test by which one may judge of the weight of a claim to be allowed to exist. The trader in the bucket shop performs no service. He earns nothing. His gains, if there be any, are simply taken out of the pocket of another man and, part of them



put into his own, while the rest is apt to be squandered in dissipation. It is not only demoralizing, but absolutely useless—as useless as the louse on a head. The bucket shop should go.—*Chicago Tribune.*

#### THE MOTE AND THE BEAM.

The Chicago Board of Trade and the Chicago press are engaged in the prosecution of a fierce crusade against the bucket shops. They follow the example of the New York Stock Exchange in determining that the gambling which goes on in these establishments must be thoroughly stamped out. It is almost a Spartan vigor and virtue with which the habitues of these great speculative centers address themselves to the work of wholly exterminating the places for gambling of the sort that is typified by betting \$25 on the wheat market. This the Board of Trade people very clearly show to be gambling pure and simple, which sooner or later brings all who practice it to utter ruin.

All that they say is perfectly true. The bucket shops are merely gambling dens of a modern form, and should be abolished. But before the reformers of the Board of Trade and Stock Exchange proceed to extremities in the work of reformation, would it not be wise for them to turn their attention to more gigantic gambling in the same form nearer home? What institutions set the example and furnished the methods for the gambling that is carried on in the stock and grain bucket shops? The New York Stock Exchange and the Chicago Board of Trade. The essential difference between the two classes of gambling is that while the big exchanges will not recognize bets of less than \$150 or \$250, according to their respective rules, the petty gambling dens take such small amounts as \$5 or \$10, with the result that thousands are lost and won in the big games for hundreds in the little ones.—*Pittsburgh Dispatch.*

#### ENGLISH GRAIN MEASURES.

Concerning the lack of uniformity in grain measures in England and elsewhere, the *Mark Lane Express* says: There are very few in the grain trade who have accustomed themselves to think in hundredweights, and consequently the Board of Trade figures do not convey any definite idea to their minds as to the actual bulk of the quantities imported. With the exception of Liverpool and one or two markets subsidiary to it, where the cental is used as a standard of weight for grain, the quarter is the most general standard adopted throughout the United Kingdom, representing both measure and weight, and being a measure of capacity it naturally conveys a tangible idea of quantity. There are bags and coombs and stones locally, but when grain is represented in quarters ninety-nine people out of a hundred know what its bulk is. The Board of Trade "quarters" of wheat represent  $4\frac{1}{2}$  hundred weights, or 485½ pounds of wheat, or not quite 61 pounds per bushel; and their flour is converted to wheat at the rate of  $3\frac{1}{2}$  hundred weights of flour to 1 quarter of wheat, or 49 pounds of flour to 1 bushel of wheat. This is done, of course, to save trouble, but the Corn Sales Act reduces all sales of English wheat to quarters of 480 pounds, or 60 pounds per bushel, and for comparison it is distinctly of advantage to reduce all imports of wheat to the same basis. Not only so, but a large proportion of our wheat imports is actually in quarters of 480 pounds, whilst the Board of Trade quarter does not represent the exporting custom of any country. The equivalent of 49 pounds of flour to 1 bushel of wheat we consider too high, and that of 45 pounds of flour to 60 pounds of wheat, which we adopt in respect of all imports, we take to be nearer the mark.

#### THE NEW YORK STATE ELEVATOR BILL.

An act authorizing the state to provide cheapened facilities at the ports of Buffalo and New York for elevating and transferring grain intended for shipment over the canals and waters in and partly within this State.

*The people of the State of New York, represented in Senate and Assembly, do enact as follows:*

SECTION 1. The Superintendent of Public Works is hereby empowered and directed within thirty days after the passage of this act to enter into contract with the lowest bona fide responsible bidder or bidders to perform the services hereinafter mentioned, with adequate security satisfactory to the Superintendent of Public Works for the faithful performance thereof, to-wit: To construct six floating grain elevators of the latest improved style (bucket or pneumatic), capable of elevating and transferring not less than ten thousand bushels of grain each per hour. Said elevators shall be completed and in readiness for operation on or before September first, one thousand eight hundred and eighty-seven.

Sec. 2. When said elevators shall have been completed and in readiness for service, two of the same shall be used for elevating and transferring grain at the port of Buffalo, and four shall be used for like purposes at the port of New York, for the transfer of grain received by or intended for shipment over the canals and waters in or partly within this state.

Sec. 3. When the aforesaid elevators have been completed as provided in the preceding sections of this act, the Superintendent of Public Works shall employ so many clerks and laborers as may be necessary to carry into effect the provisions of this act; and it is further provided that the Superintendent of Public Works is hereby empowered to collect for the use of the state such rates of transfer charges as may be determined upon and imposed by the legislature. The maximum charges for the

service of transferring and elevating grain shall not exceed one-half of one cent per bushel; provided, however, that the vessel or canal-boat shall provide only for what is commonly called trimming or shoveling to and from the leg of the elevator when loading and unloading.

Sec. 4. The profit accruing to the state from the use of said transfer facilities, after deducting the necessary running expenses and repairs thereto, shall be paid by the Superintendent of Public Works to the Comptroller to defray the cost of the construction of said elevators.

Sec. 5. The sum of one hundred and fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any moneys in the treasury of the state not otherwise appropriated, to carry into effect the provisions of this act, which amount shall be paid by the Treasurer upon the warrant of the Comptroller, and the requisition of the Superintendent of Public Works as he may require the same in the construction of the aforesaid grain elevators to be used by the state.

Sec. 6. This act shall take effect immediately.

#### COMMISSION CHARGES AT MINNEAPOLIS.

At a special meeting of the Minneapolis Chamber of Commerce the following changes of the by-laws were unanimously carried:

Receiving and selling on arrival, to arrive, or for some future month's delivery: Wheat, corn, barley and rye, 1 cent per bushel; oats,  $\frac{1}{2}$  cent per bushel; ground feed, 50 cents per ton; millstuffs, 25 cents per ton; hay, \$5 per car.

Buying and shipping lots less than ten cars: Wheat, corn, barley and rye, 1 cent per bushel; oats,  $\frac{1}{4}$  cent per bushel.

Lots of ten cars or more, not less than  $\frac{1}{4}$  cent per bushel.

Buying lots not less than 5,000 bushels,  $\frac{1}{4}$  cent per bushel. No charge for selling the same receipts.

Lots not less than 5,000 bushels,  $\frac{1}{4}$  cent; less than 5,000 bushels, 1 cent per bushel.

Buying and selling where settlement is made without delivery of warehouse receipts,  $\frac{1}{4}$  cent per bushel. Where delivery of warehouse receipts is made on such contracts,  $\frac{1}{4}$  cent per bushel.

To resident members of the Chamber of Commerce and commission merchants who are members of trading organizations in other markets and residents therein, not less than one-half of the regular rates, provided no advance of money is made.

In addition to the above there shall be charged such legitimate expenses as are necessarily incurred in caring for the property and guarding the interests of both consignor and consignee, including interest on advances. Nothing in this rule shall be so construed as to prevent any special agreement between consignor and consignee by which a higher rate of commission may be charged in special cases.

Section 10 provides that any violation of the above rules, directly or indirectly, either in rebating, cutting rates, or by making or reporting fictitious sales or purchases, shall be punished by a fine of not less than \$100 nor more than \$250, as the directors may determine. Such sum may be paid to the persons making such charge. The offender may also be censured, suspended or expelled, as hereafter provided for.

An amendment to rule 17 is also provided, to the effect that in all sales of grain and feed by car-load 30,000 pounds shall constitute a car-load, except that oats and feed shall be rated at 24,000 unless otherwise specified at the time of contract.

The rate on hay is changed from 50 cents a ton to \$5 a car.

Hawkins & Canfield, dealers in agricultural implements and grain, at Sac City, Iowa, have sold their stock of implements, and will handle grain exclusively.

#### TO POULTRY RAISERS.

*The Complete Poultry Manual* is a neat little work which is well worth reading by those interested in poultry, or by boys or girls who want to turn an honest penny. The price is only 25 cents. Sent postpaid on receipt of price. Address

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Iowa land for a good elevator. Iowa preferred. We also want to exchange Iowa land for merchandise or live stock.

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Good new steam elevator, capacity 15,000 bushels. Good corn cribs for 30,000 bushels ear corn. New implement shed 22x60 feet. Address

DODD & MARSHALL, Wood River, Hall Co., Neb.

#### FOR SALE.

An elevator, with a capacity of 20,000 bushels, two lumber yards and a dwelling, in a good grain and stock country, on the Toledo branch of the C. & N. W. R. R. Address

FONES & CONNOR, Whitten, Hardin Co., Iowa.

#### FOR SALE.

Steam elevator. Good trade. Capacity, 10,000 bushels; now handling car-load of grain per day. Will be sold at two-thirds value. Everything nearly new. Best of reasons for selling. Address

R. HEFFELFINGER, Denison, Iowa.

#### FOR SALE.

A new steam elevator, 15,000 bushels' capacity, 30-horse power engine, and all modern improvements, situated in the heart of the great corn belt of Iowa. Must be sold within sixty days. Call on or address

C. W. NEAL, Stuart, Iowa.

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A new steam elevator, of 20,000 bushels capacity, with crib-room for 50,000 bushels of corn, situated in the heart of the corn belt of Iowa, and doing a fine business. Reason for selling, dissolution of partnership. Address

Lock Box 11, Templeton, Iowa.

#### STEAM ELEVATOR AND FEED MILLS FOR SALE.

Capacity \$20,000 bushels. Good grain, feed and coal trade established. Located at Burrton, Harvey Co., Kansas. Fine wheat and corn country. A bargain on easy terms if sold soon. Satisfactory reasons will be given for selling. For full particulars and terms call on or address

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One Lane & Bodley 50-horse power engine and 60 horse power boiler; one portable Economizer 15-horse power engine and boiler; one Bookwalter 6 horse power upright engine and boiler. These engines are all in good order and repair, and have been replaced with engines of our own make. They will be sold cheap. Call on or address

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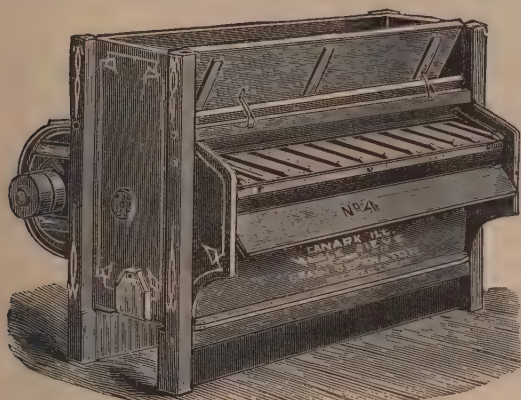
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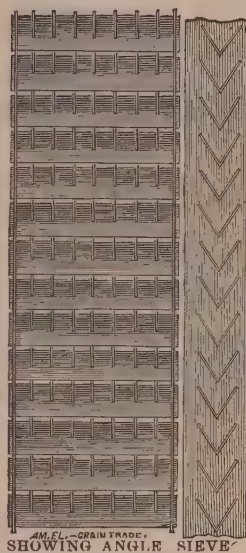


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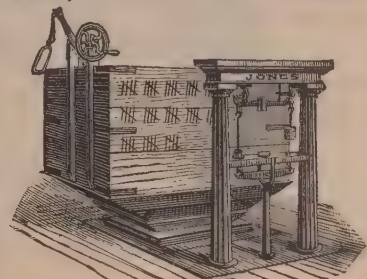
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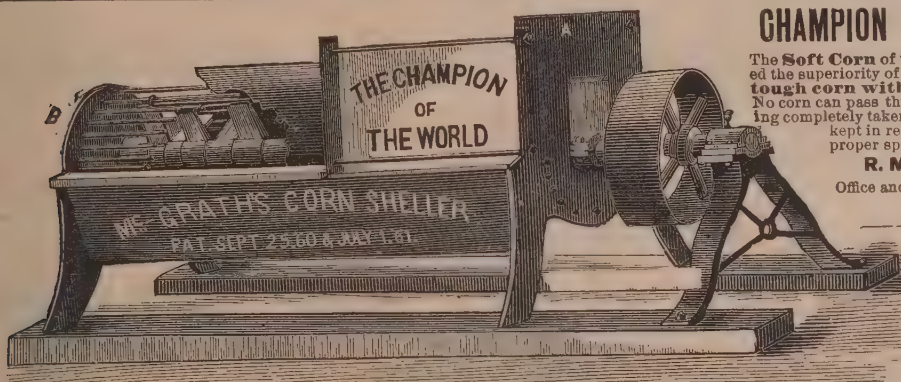
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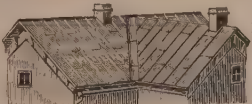
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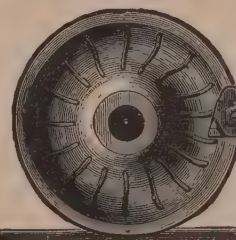


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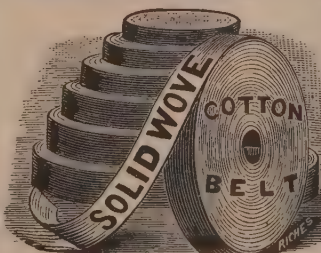
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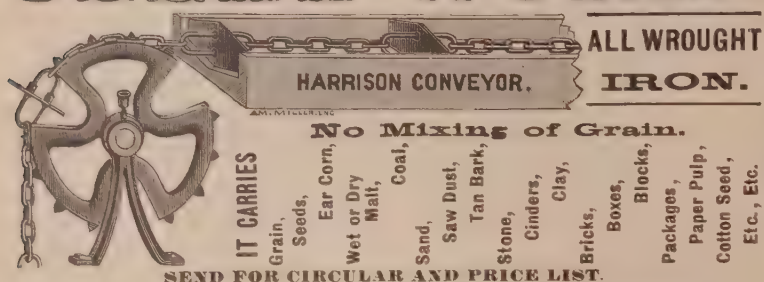
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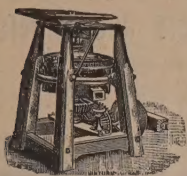
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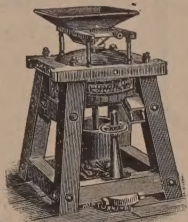
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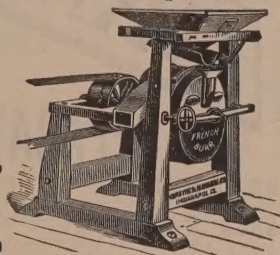
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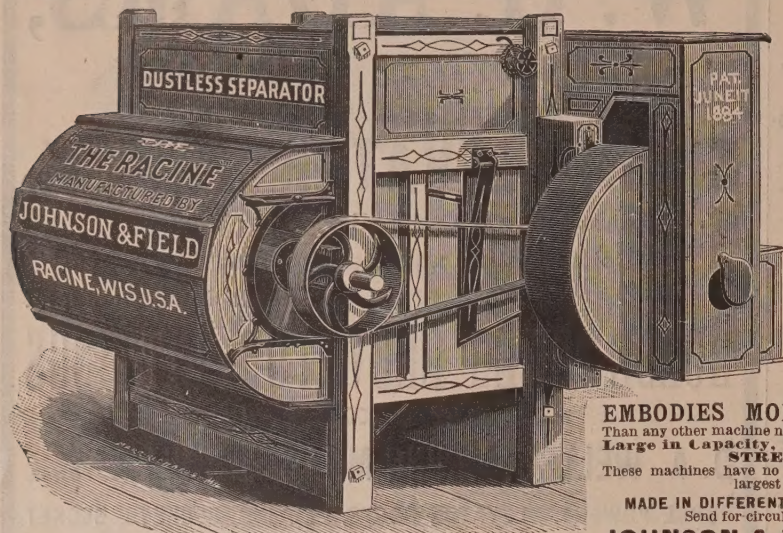
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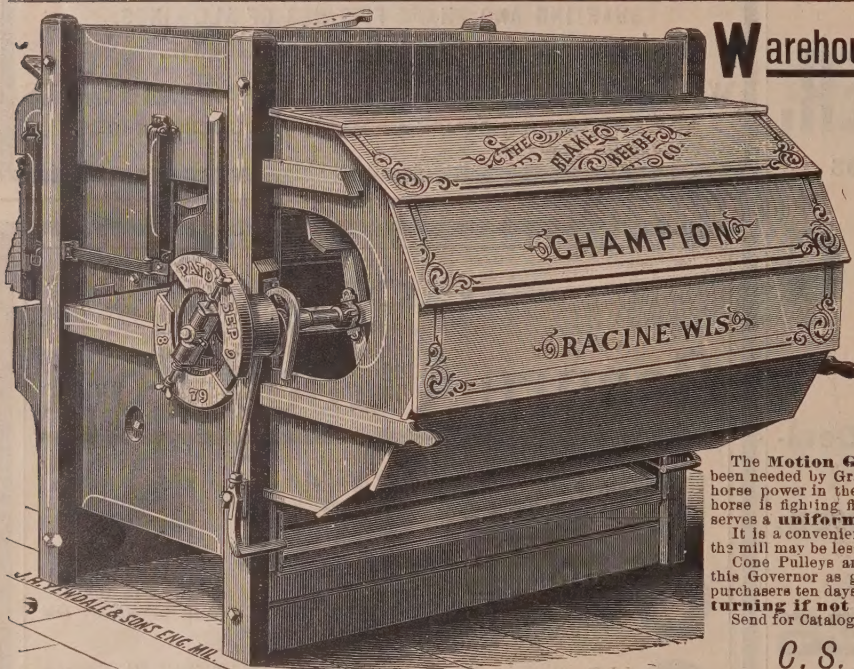
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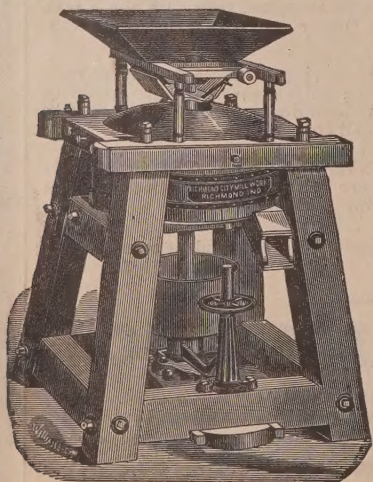
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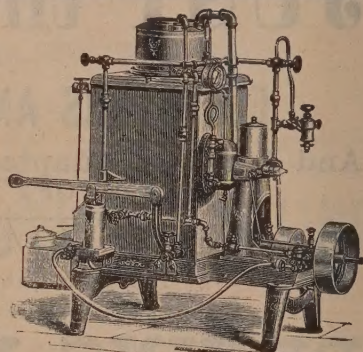
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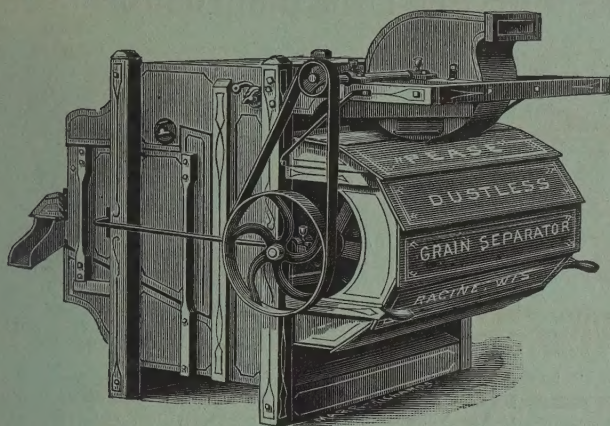
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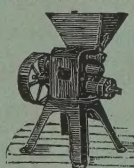
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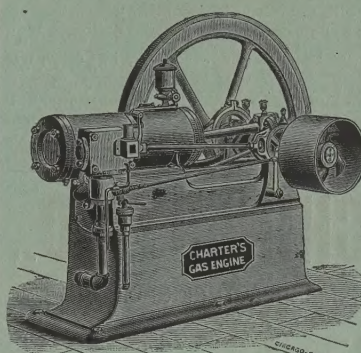


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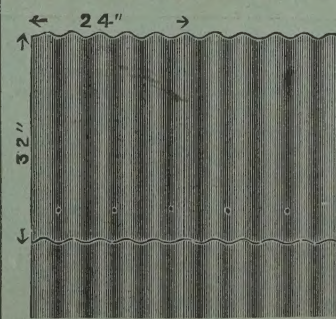
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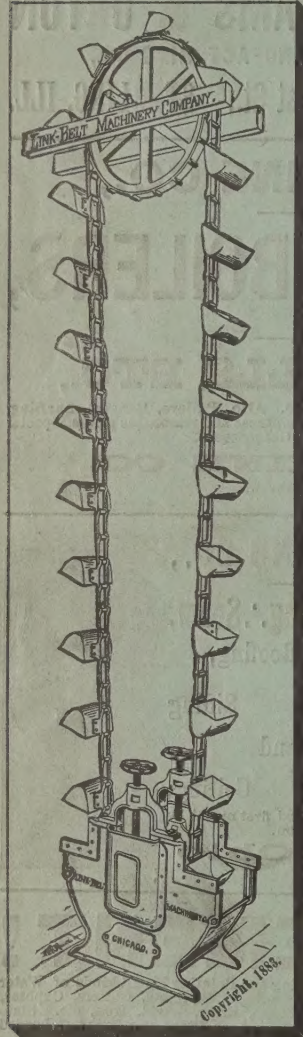
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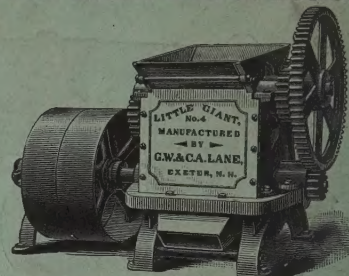
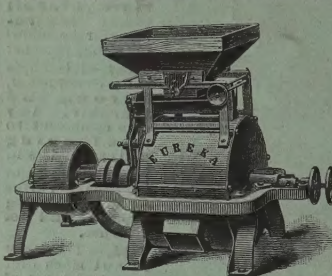
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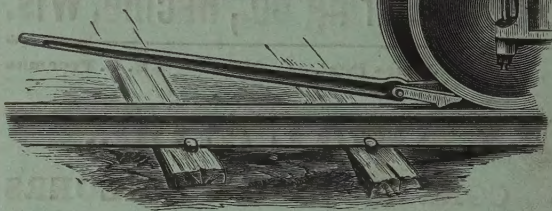
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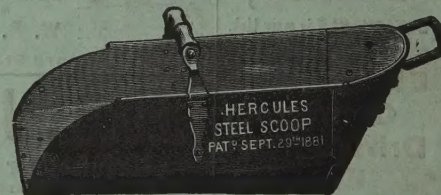
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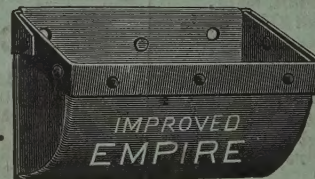
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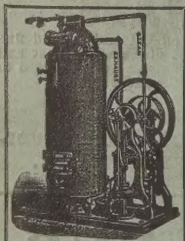
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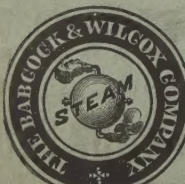
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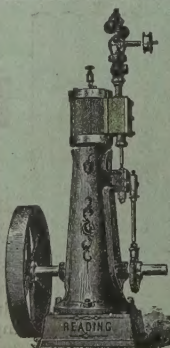
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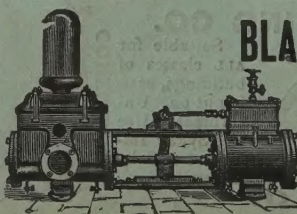
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